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Single copies - - - - - - - - $ .15	Six months - - - - - - - - $3.00	One year (in Canada) - - - $7.90
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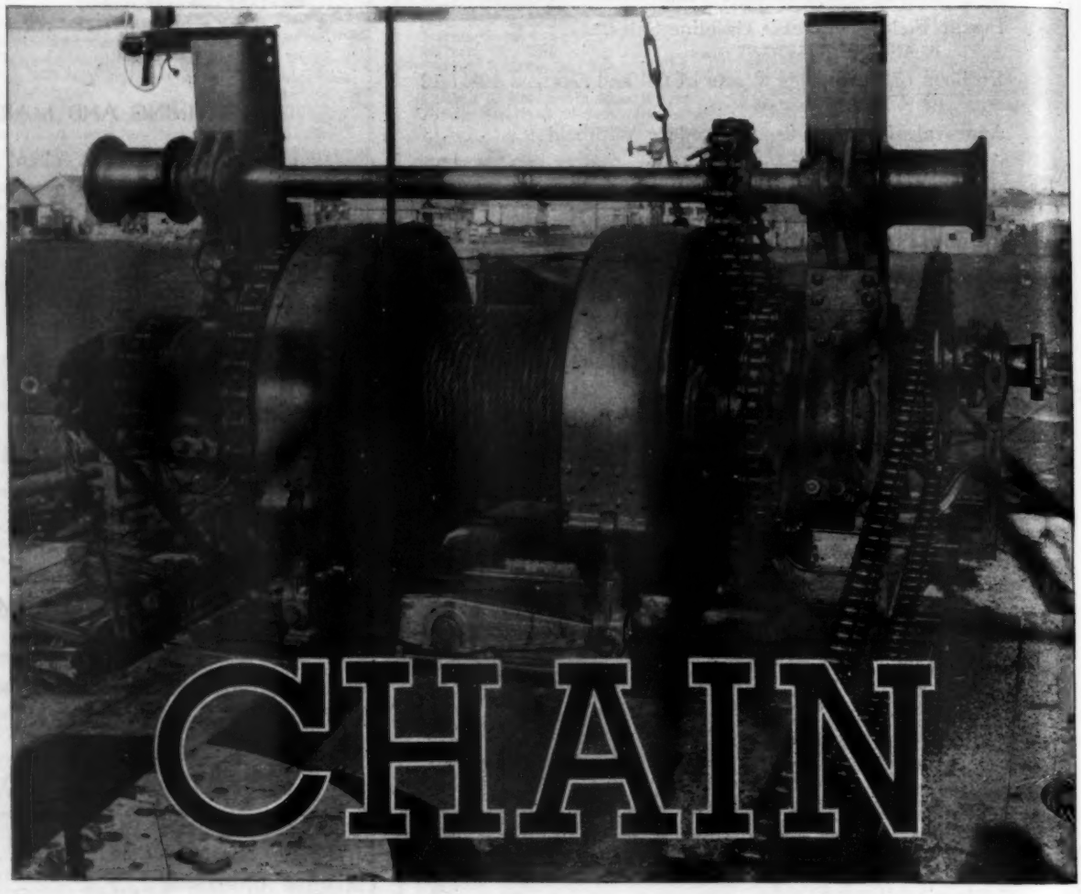

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Crude Situation Stronger; Producers Deserving Of Reward for Curtailment of Output

By ANDREW M. ROWLEY

WITH indications that a maximum allowable figure of probably 325,000 barrels daily will be restored in the East Texas fields, the crude oil situation in the United States is especially strong. The price increase in California was expected and the policy of the Standard Oil Co. of California is logical under the circumstances. Producers should be given the benefits so well deserved after this long period of co-operation in the efforts to conserve production and prevent physical and economic waste.

The entire petroleum industry should strive for a better price level. Sound business demands that it sell its products at a profit. Any other marketing policy can only lead to disaster not only for the company following it but for all others who permit themselves to be drawn into price wars where gallonage instead of profits is the goal. If efforts now so often directed toward procuring gallonage from a competitor were directed toward increasing consumption by the motoring public, everyone would benefit and each branch of the industry would enjoy a ready market at a good price.

Higher crude oil prices in the Mid-Continent area are justified and warranted. Some leaders of the industry feel any increase in prices at this time would result in a drilling campaign which would result in a lot of new production. A careful check of the situation, however, does not seem to bear out this contention. Producers certainly have co-operated thus far in holding output to requirements, in fact, they have made very little protest when millions of barrels of crude was being withdrawn from storage at the same time they were pinching in their own wells.

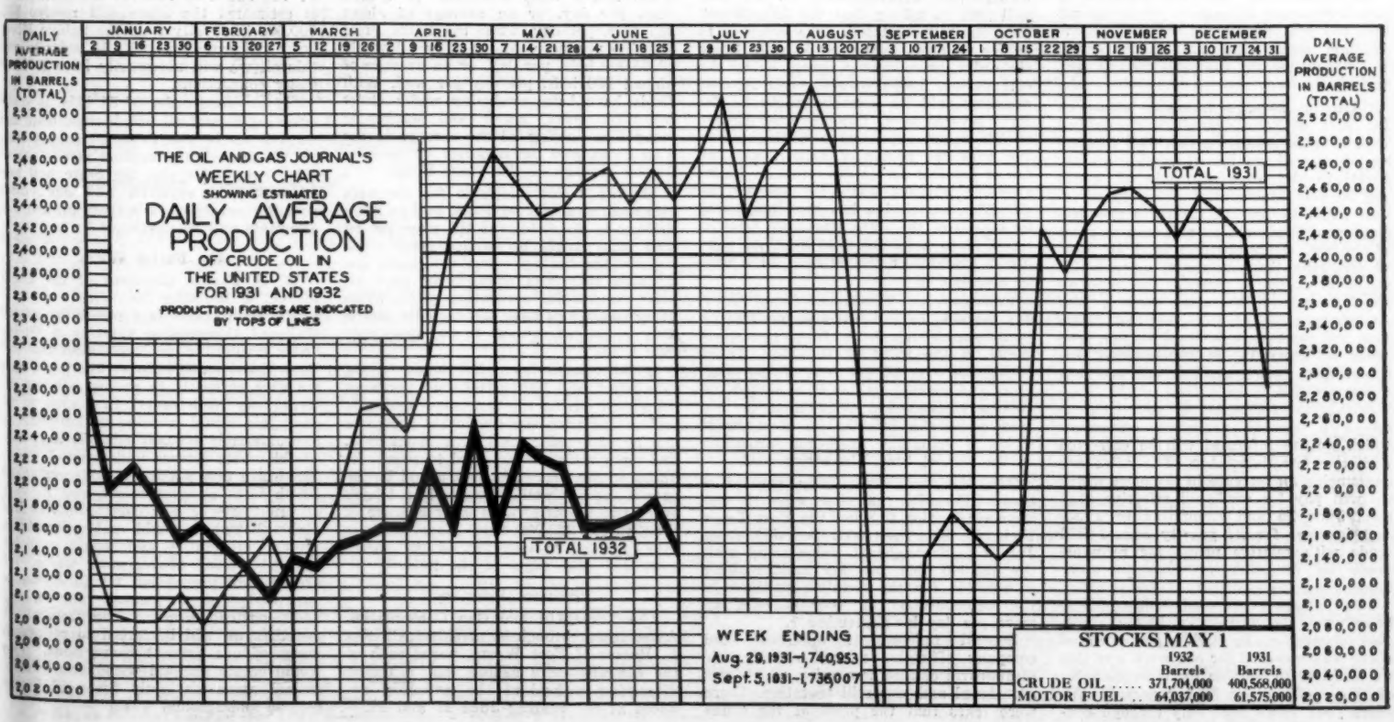
Crude oil production now, and for some time past, has been below requirements. That is a healthy condition and just what the situation should be but the producers should be given greater consideration and prices for their products should be increased and held at a better level as long as this condition obtains. The action in California shows what can be done for the benefit of all. If production does get too high, prices certainly can be lowered but better prices should be given with conditions existing as at present.

Crude Oil Production in the United States

Estimated daily average production for the week ending June 25, and a comparison with previous week and one year ago, follows:

	June 25	June 18	June 27, 1931
Oklahoma—			
Oklahoma City	97,865	119,720	155,460
Seminole-St. Louis	114,320	117,415	146,870
Remainder of State	214,250	215,850	241,420
Total Oklahoma	426,435	452,985	543,750
East Texas—			
Lathrop	125,046	124,492	82,205
Kilgore	102,655	101,435	163,110
Joiner	104,111	105,117	114,389
Total East Texas	331,812	331,044	359,704
West Texas	178,962	179,354	213,696
North Central Texas	74,794	75,468	86,771
Texas Panhandle	55,836	53,036	60,064
East Central Texas	57,348	58,987	59,800
Gulf Coast Texas	111,829	109,045	126,454
Southwest Texas	57,593	59,615	65,265
Total State of Texas	868,174	866,549	971,754
Kansas	98,235	96,215	101,840
North Louisiana	29,835	29,550	35,690
Gulf Coast Louisiana	31,904	31,846	30,210
Arkansas	34,025	34,060	44,220
Eastern fields	121,000	121,000	110,500
Rocky Mountain area	80,273	80,716	97,257
California—			
Santa Fe Springs	56,750	61,000	63,000
Long Beach	69,000	74,000	76,000
Playa Del Rey	15,000	16,000	25,000
Elwood	14,000	14,000	25,500
Kettleman Hills	58,950	59,750	62,500
Remainder of State	246,300	254,750	258,250
Total California	460,000	479,500	510,250
Total United States	2,149,881	2,192,421	2,445,471

Decrease, 42,540 Bbls. Daily



California Oil Producers Reduce Production and Are Given Increases of 4 to 36 Cents

The Standard Oil Co. of California made good its promise to substantially increase the price of oil in California if producers in all fields curtailed their output to a total for the State of 476,700 bbls. per day, by posting on June 26 increases of from 4 cents to 36 cents per barrel in every high gravity oil field in which it purchases crude oil. The company made no changes in the flat price for crudes of from 14 to 19 gravity.

Twenty gravity oil was given a 4-cent average increase and the increases were greater as the gravity of the oil increased. In the Signal Hill (Long Beach) area the increased prices ranged from 4 cents to 28 cents per barrel; in Seal Beach and Alamitos Heights, from 4 cents to 20 cents; Huntington Beach, 4 cents to 21 cents; Inglewood, 5 cents to 16 cents; Playa Del Rey, 4 cents to 33 cents; Olinda and Brea Canyon, 4 cents to 23 cents; Athens, Rosecrans and Domingues, 4 cents to 30 cents; Torrance, 4 cents to 23 cents; Richfield, 4 cents to 19 cents; Coyote, 4 cents to 28 cents; Santa Fe Springs, 8 cents to 35 cents; Midway-Sunset, Elk Hills, Buena Vista Hills, 4 cents to 36 cents; Lost Hills, 4 cents to 33 cents; Athens and Rosecrans, 20 cents to 24 cents; Montebello, 2 cents to 15 cents; Wheeler Ridge, 2 cents to 17 cents; Coalinga, 4 cents to 15 cents; Whittier and LaHabra, 3 cents to 14 cents; Elwood Terrace, 25 cents to 31 cents.

Notwithstanding the increase in price was based on a very considerable reduction in production, it meant a very material increase in the income of producers as a whole.

The production of California in the month of May averaged 502,443 bbls. per day. The reduction in crude output last week was only 8 per cent of the May production, while the increases in price averaging about 25 cents per barrel for top gravity oil in all the fields, more than offset the lessened output of oil.

Kingbury's Statement

In announcing the new schedule of prices President Kingsbury of the Standard Oil Co. dispatched a telegram to William Keck, chairman of the executive committee for equitable curtailment, stating:

"After a month's intensive effort on the part of your committee resolutions were adopted indicating that only through an advance of not less than 25 cents per barrel in the price of crude oil would you be able to succeed in your conservation plans to prevent waste in the production of crude oil. In response to these resolutions we telegraphed you on June 11 outlining the conditions under which we could afford to increase the price we pay for crude oil. Yesterday evening Neal Anderson, state umpire, certified to us that the conditions outlined in our telegram of June 11 as subsequently extended have been complied with and that the production in each field of the State is within the figure set by your committee with certain negligible exceptions which we are informed will be corrected within a few days. Accordingly we are announcing an increase in the price which we will pay for crude oil effective at 7 a.m., June 26 and amounting to a 25-cent increase for 27 gravity Signal Hill crude with relative prices for refinable crude oil of other gravities in other fields.

"Our original proposal indicated the price would be withdrawn if the allowable production by fields as indicated above was exceeded for one week and this we modified to provide for determination of this condition by 10-day periods. We share your views that only through continued co-operation of the producers of the State and by constant vigilance will it be possible to maintain the present improved condition and to effect the further curtailment which will be necessary when the seasonal peak demand has passed. For the work that your committee has done the industry and the State owe you a debt of gratitude and we wish you and your associates continued success. You may count on our continued support and co-operation."

The telegram to which Mr. Kingsbury referred was signed by Umpire Neal Anderson and William Keck, chairman of the executive committee for curtailment. This telegram said:

"We are transmitting to you herewith a detailed production report showing the production in all fields in the State for June 24, as reflected by today's gauge. These figures are compiled from information furnished this office by the oil operators in the various fields. We hereby certify that to the best of our knowledge and belief the foregoing figures are, in all cases accurate and represent a true statement of the State's production for the 24-hour period ending as of 7 a.m. today. Please note the underage of Long Beach, Santa Fe Springs, Playa Del Rey, and Huntington Beach."

The entire production for the State on June 24 was 448,320 bbls., which is 28,380 bbls. under the curtailment schedule of 476,700 bbls. This underage was necessary because of the provision that before increased prices could be considered each field in the State should be at, or under, the allowable for that field and that the underproduction of any particular field could not be absorbed by overproduction in other fields.

The committee on equitable curtailment stated that it was gratifying that in the trouble fields, where overages in the past have offset the splendid showing of other fields, namely at Long Beach, Huntington Beach, Santa Fe Springs and Playa del Rey, were all beneath their allotted quotas. Continuing, the committee's statement says:

"It is doubtful whether ever before in the history of the California oil industry has such complete co-operation been afforded by the vast majority of the producers, both major and minor. However, even in view of the present success, there remain some operators who continue in refusing to accept their share of the curtailment burden. On Wednesday, last, the refusal of such operators to curtail indicated that the curtailment requirements for all fields might never be accomplished and that such operators would nullify the accomplishments of those seeking to stabilize the industry. Fortunately, however, other more public spirited operators came forward and volunteered to absorb the overage of the offenders by further restricting their own output. It was because of these other operators, and the self-sacrificing attitude shown by them, that the present remarkable production picture was obtained. Naturally, it cannot be expected that such operators will continue to carry this added burden for any great length of time but it is expected that if a price increase is obtained and when inequalities in proration schedules are adjusted, that no further excuse will remain for any operator not to curtail."

On May 17, last, when the executive committee for equitable curtailment undertook the task of reducing California's oil production to within reasonable limits of the marketable demand, the production stood at 505,535 bbls. The production of 448,320 bbls. indicates that a reduction of 57,215 bbls. had resulted as the net effort of this committee's labors, together with equally effective efforts on the part of the central proration committee, the state oil umpire and greatest of all, of the oil operators themselves.

Commission Withholds Order on East Texas Awaiting Protests From Producers

AUSTIN, Tex., June 28.—The Railroad Commission of Texas announced late Monday it will hold temporarily in abeyance its 51-bbl. per well order for East Texas that would abandon a field limit, awaiting results of assurances of East Texas operators and landowners that approximately 85 per cent will join in asking that the 325,000-bbl. field limit be restored. The order is to be for 60 days, beginning July 1. Since the order, unanimously agreed on by the commission, keeps present well figures, members said its issuance might be delayed several days. Commissioner Ernest O. Thompson expressed a willingness to "go with the people of East Texas" as fas ar possible within discretionary limits affecting physical waste to conserve the oil. The commission has been petitioned by lessees of the state streambed land in the field to keep the field limit on, saying it would cost the State a huge sum to abandon it.

Commissioner Thompson stated Tuesday morning he had just been notified by long-distance telephone from those engaged in the work in the East Texas Field that over 90 per cent of the operators and royalty owners have signed the voluntary agreement petitioning the retention of the 325,000-bbl. field limit. "This is voluntary proration—proration of the highest type," he commented.

The Railroad Commission created a furore Thursday morning when it announced decision to allow the East Texas Field 51 bbls. per well per day from July 1 to September 1, doing away with the 325,000 bbls. per day limit, making it possible for the field to produce in the neighborhood of 400,000 bbls. or more per day by September 1.

Several independent operators and company officials at once voiced their disapproval of this new order, which was not signed and was still tentative. There were fears that the price of the crude would drop if the new order was put into effect.

The commission was thought to have taken the Van Field, Van Zandt County, and the Yates Field, Pecos County, into consideration when it made the announcement of the 51-bbl. allowable. The Van Field has a daily allowable of 50,000 bbls. per day, or an average of about 157 bbls. per day, while the Yates Field has 405 producers and a daily allowable of 65,000 bbls. per day, or an average of almost 160 bbls. per day per well. Both fields have been producing under strict proration rules, major and semimajor companies holding all the acreage in the Van Field, and the majority of the producing acreage in the Yates Field.

Making a flat allowable for the next two months would no doubt lead to more drilling in the field, and the unconnected well total would be swelled every week as the purchasing companies have announced that well connections have almost reached the saturation point, while other companies have flat-footedly stated they would not connect to any more outside wells.

If the commission order should be put into effect, and 150 or 160 wells per week completed during the next nine weeks, as during the past three months, pressures can be expected to fall at a faster rate, and more wells are expected to go on the pump within that time than would be the case if the per well allowable is cut back every two weeks to keep daily average of the field to 325,000 bbls. More water is also expected to show up on the northwest and west edges of the field.

Protests Pour In

The Texas Oil and Gas Conservation Association, through its president, Charles F. Roeser of Fort Worth, wired each of the commissioners asking that a public discussion be held on the testimony adduced at the hearing June 21 and 22.

The commission also received a protest from the Rhoades Drilling Co. and Farrell & Co. of Fort Worth, successful bidders on development of the state-owned bed of the Sabine River that runs through the East Texas Field.

"Under leases recently executed to us by the board of mineral development it is estimated the State will receive $5,000,000 in royalty from the Sabine River bed," the protest stated. "In order to run this oil we will necessarily have to have many connections.

"If proposed order of 51 bbls. is made effective 50-cent oil will be imminent and we will not be able to secure connections.

"We beseech and implore you to reconsider your order else the State will lose $3,000,000 in royalties and our entire program paralyzed. We trust present top allowable will be continued."

Mr. Farish Wires

W. S. Farish, president of the Humble Oil & Refining Co., wired:

"Realizing there is a possibility of the Railroad Commission entering a 60-day order fixing the per well allowable for East Texas at 50 bbls. or above per day, we wish earnestly to protest against entering any such order. In course of 60 days this would increase withdrawals to approximately 400,000 bbls. per day. This would create serious underground waste. There are now about 90 wells completed which have no connections and in view of rapid rate of new completions such a high allowable would only accentuate present difficulties and would probably lead to serious aboveground waste. We are already purchasing far in excess of our needs and we cannot take on any additional commitment. The probabilities are that we will be forced to relinquish many of our present connections. This would create unequal withdrawals in localized areas and only force additional serious underground waste."

Fertile Field Open to Industry to Increase Sales Of Gasoline and Lubricating Oils

By ANDREW M. ROWLEY

Selfishness on the part of many distributors of gasoline and their failure to take a broad view of the present situation is largely responsible for gasoline consumption at this time showing a loss as compared to last year instead of registering an increase. With motorists in every city, town and community throughout the United States anxious for suggestions as to "where to drive", most distributors of gasoline refuse to advertise these trips and give the automobile owner the information he wants, just because they fear someone who does not advertise might benefit to some extent from the increased business and sales of gasoline and lubricating oils.

It is the old story, responsible for most of the industry's troubles—viewing every question from a selfish standpoint without the ability or desire to see the greater benefits which will accrue from another policy. It is the same attitude which prevailed when the matter of co-operation in curtailing crude oil production was advocated. When The Oil and Gas Journal in its issue of April 28, 1927, advocated such co-operation, oil men laughed and said: "Why, you can't get any two oil men to agree on what day of the week it is." And these men were just about right but the producing branch of the industry finally did begin to agree on different matters and everyone knows the result—crude oil production has been brought to or below requirements despite the opening of enormous fields such as Oklahoma City and East Texas.

It was a far greater problem to get crude oil producers to shut down their wells and curtail their production than it is to increase consumption of gasoline and lubricating oils.

Consumers "Rarin to Go"

Consumers of these products own their automobiles and are "rarin to go". Their families are constantly saying "Let's drive somewhere." Dad, too, wants to get into the old bus and "go places". All he needs is the tip as to where to go, what he will see en route, the kind of roads he will have to travel, and whether he can get something to eat along the way.

Give him this information and you will find him filling the gasoline tank and the crankcase every week-end and holiday and every Sunday and he and the family will be roaming the wide open places instead of sweltering in the heat around town. And he will be burning up gasoline and using lubricating oil and still not be spending any more money than he would were he to take the whole family to a show.

Really, it borders on being tragic when one considers the wonderful opportunity the petroleum industry has now to increase its sales in a legitimate way and make a good profit this year and then sees a narrow-minded, selfish policy prevent the business from showing the gain it otherwise would. Advertising to stimulate travel would do the trick. There is absolutely no question about this. If you doubt it, ask any owner of an automobile how often he would take trips if he knew just where to go, how to get there and had all the information he needed about roads, accommodations and what he would see along the way.

Driving an automobile is the cheapest form of recreation available to the American family. The automobile owner knows this. He can drive 150 miles on less than $2 worth of gasoline while the cost of a family of five going to a picture show which would last not more than two hours at the most would be about $2.50.

The Eternal Question

Every evening the first question which confronts an automobile owner is "Well, where can I drive tonight to get cooled off before we go to bed?" With about three hours of daylight, he can make a fairly long drive. There are scenic routes around every city and town in the United States. Local refiners and distributors of gasoline and lubricating oils should make these scenic drives known.

The question is more pressing on Saturdays and Sundays. No one wants to swelter around the house if he can help it. The summer season gets the automobile owner thinking of trips into the country just as much as "In the spring a young man's fancy," etc. There are numerous picnic sites within easy driving distance of nearly every community in the country. Parents are anxious to get the kids out into the country where they can run to their hearts content. There are pretty streams where the youngsters can wade without danger and where Dad can drop a line and try out his luck.

One week-end trip of 150 miles would double the gasoline consumption of the average automobile owner. A little co-operative advertising in the different cities and towns throughout the country would accomplish the object. And any refiner or distributor who will not do his part in such a program, just because some fellow who might not advertise might get a little of the additional business, should take a coal-burning boat and go to Europe and stay there.

There are a number of companies who are doing a wonderful work along the line suggested. The Continental Oil Co. of Ponca City, Okla., maintains a travel bureau in Denver, Colo., which last year distributed travel literature and information on trips to more than 110,000 inquirers. That company has developed a service for motorists throughout the nation which has made it hosts of friends. Just a card stating where you want to go will bring you maps marked with routes from your home to destination and return, folders showing lists of hotels, rates, etc., pamphlets describing points of interest along the way and all other information a motorist desires.

The Standard Oil Co. (New Jersey) has developed an exceptionally efficient organization which supplies information regarding trips, etc. The Standard Oil Co. of New York, now the Socony-Vacuum Corp., has used its advertising to stimulate travel through the historic sections of the eastern section of the United States. The Louisiana Oil & Refining Co., The Texas Company, Sinclair, the Shell corporation and other companies have advertised trips which have stimulated travel.

The Standard Oil Co. of Indiana inaugurated this year a gasoline campaign in approximately 1,500 daily and weekly newspapers in 13 midwestern states. Instead of offering gasoline at so much a gallon the advertisements in this series stress the need for relaxation, the beauties of scenic attractions and the enjoyments of touring.

Facilities for Tourists

Now is the time to get back of a movement to get the automobile owner out on the road using his car. He is more than willing to do so. He wants to go. It is a fertile field. Show him a few pictures of mountains and streams and he will be filling the tank and crankcase and starting out.

There are greater facilities for motorists now than ever in the history of the industry. Tourist accommodations, especially in the West, rival those of the best hotels. Brick and stone buildings with private baths and good comfortable furnishings and a private garage attached, give the traveler every comfort and eliminates the necessity of unpacking baggage and walking through hotel lobbies when the motorist is somewhat dirty and disheveled from the day's trip.

Get busy with your local newspapers. Map out week-end trips and give complete details as to roads, attractions and accommodations. Use your advertising space to suggest tours by automobile during the vacation. Then watch the figures on consumption of gasoline and lubricating oil. And you will get your full share of the increased business.

Problem of Preventing Waste of Oil and Gas And Stabilizing the Petroleum Industry

Submitted By W. S. FARISH
President, Humble Oil & Refining Co.

A great deal has been said and written during the last several years upon the problem of stabilizing the oil industry and the necessity for and methods of preventing the waste of oil and gas. There does not seem to be a general recognition of the fact that this problem of the oil industry is one peculiar to that industry and that the overproduction of oil, with all of the demoralizing effects flowing therefrom, results from conditions peculiar to the industry and can only be prevented by methods peculiar in their application.

The problem of oil and gas conservation and the stabilization of the industry arises largely out of the nature of these products, the conditions in which they exist underground, the methods by which they are produced, and the rules of property that have been evolved controlling their ownership and production. Any understanding of this problem, therefore, requires a consideration of these factors.

Energy of the Pool

Oil and gas exist underground in natural reservoirs, sealed above by an impervious formation and usually underlaid with water. They exist together under pressure, often very high, exerted by the force of the water below and the expansion of the gas within the reservoir. These forces constitute the energy of the pool by the use of which the oil and gas are produced. If they are properly utilized and conserved, the quantity of oil and gas ultimately recovered is increased. On the other hand, if they are not properly utilized, they become a destructive agency by which large quantities of oil and gas are lost underground and may not be recovered for any useful purpose. If the gas energy of the pool is dissipated, its power to lift the oil is lost. If the water drive of the pool is not controlled so as to permit the orderly advance of the water table, it becomes a destructive agency by which oil and gas in the reservoir are drowned out and trapped off in such a way that they can not be recovered by present known methods of recovery.

When a well is drilled into the reservoir, the oil, gas and water move toward the well. The tendency is for the gas to move most rapidly and for the water to move more rapidly than the oil. If the production of oil and gas is unrestrained, the tendency, therefore, is for the gas to by-pass the oil and for the water likewise to pass the oil and trap it off in the porous rock contained in the reservoir so that it can not be recovered. As numerous wells are drilled and the flow is unrestrained, this tendency toward the loss of oil underground is vastly augmented. Again, as the oil and gas in the reservoir move toward the well, they do not respect the lines of land ownership. One property owner, by the drilling of a well on his land, may drain oil from beneath the lands of his neighbor. As a consequence, the tendency is for all owners of segregated tracts in a prospective area to sink wells on their land in an effort to be the first to capture the oil and gas. This is made the more necessary because under the rule of property generally announced by the courts, the first to capture such oil and gas through wells on his land is the owner thereof, whether they may have come from beneath his own land or from beneath the land of his neighbor. This rule of property is subject to modification in its effect by the application of the police power of the state, and will be discussed somewhat in detail later on in this paper.

Mr. Farish Outlines the Situation Very Clearly

By Earl Oliver

In the days before the great toboggan slide that began in 1929, while every industry other than oil was riding the crest of the waves and bankers were regarded as supermen, several of these esteemed gentlemen were cogitating in the world's financial center over petroleum, the single weak spot in the whole gamut of industrial prosperity. One of these leaders of high finance timidly ventured the comment that the oil industry had had some bad leadership, whereupon another indignantly exclaimed: "Bad leadership? Hell, it has had no leadership!"

Since that day the mighty have fallen. Analyses are now made in the light of better perspectives. We now know it is not so much a question of leadership as it is one of foundations. Any structure, financial or industrial, based on unsound principles will crumble when the load gets heavy. Oil leadership does not now compare unfavorably with that of banking or steel or railroads, in light of the things that have happened since the above remarks were made. In fact oil bids fair to lead the others out provided a spirit of unselfish co-operation can be developed and maintained.

Unfortunately the oil industry was built on the foundation of "legalized piracy" as one of its great leaders described it, and that spirit has too constantly dominated its actions and is responsible for its embarrassment. No industry can grow strong and solid where the success of each individual is dependent upon taking something from another, or where one class or group profits at the expense of another. Constant struggle and discord occur.

Any solution of the oil industry's problems must provide a clear definition of correlative rights with means for their protection. The most complete and carefully prepared proposal to that end that has come to our attention is the accompanying article submitted by W. S. Farish, president of the Humble Oil & Refining Co. in response to a letter from The Oil and Gas Journal requesting his views on the article on stabilizing the industry and the editorial on that subject in The Oil and Gas Journal of April 21. The suggestion relative to modification of antitrust legislation will immediately arouse opposition. Yet it is clear if existing antitrust laws interfere with application of sound engineering methods that some modification of those laws must come that will enable efficient and orderly extraction and at the same time guard against those abuses the antitrust laws were intended to prevent.

The result is that oil and gas are not produced in response to market demand, but whenever a field is discovered and divergent ownership of the surface or minerals obtains there is a mad rush among operators to secure an advantage in production. They are all anxious to be the first to capture the oil. This in turn results in the release of gas pressures, the intrusion of water, and many bad practices in the drilling, completion, operation and abandonment of wells, with consequent loss in the quantity of oil and gas recovered in the aggregate from the reservoir. This mad scramble results in the production of oil from the reservoir in excess of the amount that can be moved to market through the facilities made available and, in fact, in excess of the amount that the market itself can absorb. When many new fields are discovered at or near the same time, there results a general condition of oversupply. That condition is existing in many local fields in the principal oil-producing states of this country, and, in fact, exists throughout the world today. In spite of the efforts of the industry and the various conservation agencies of the several states to prevent waste and stabilize production during the last several years, there was as of November 1, 1931, in storage in the United States alone some 616,716,000 bbls. of oil and its products.

As oil is produced in excess of the demands of the market there is a tendency on the part of all refining units in the industry to refine more products than there is a demand for, with the result that not only do we have an overproduction or excess of crude oil, but with it an overproduction or excess of all the refined products of crude oil. This in turn inevitably leads to the overexpansion of marketing facilities and to the evil practices that creep in when marketers have on hand more products than are reasonably necessary to supply the needs of the public. In the main the forces tending toward instability of crude petroleum, therefore, lead naturally toward instability in the refining and marketing ends of the business as well. They all arise primarily out of the fact that more oil is produced than can be reasonably consumed.

World-Wide Oversupply

The existence of a world-wide oversupply of crude oil and the importation of large quantities from South America and Rumania aggravate and complicate the condition of oversupply in this country and make more difficult the solution of our problem here. This is true not alone because the oversupply of foreign oils narrows our markets abroad and adds to our own oversupply here but also because it affords the American producer an excuse for failing to attack the fundamental problem in this country. He argues that the real source of the trouble is the oversupply abroad and the importation of such supplies into this country. He refuses to face the facts.

The nature of oil and gas, the conditions under which they exist underground, and the elemental principles controlling their production are physical facts that cannot be changed; and while the rule of property set forth above is subject to restriction and limitation by the application of the police power of the state in the regulation of the correlative rights of the owners of land below which the reservoir is located and in the protection of the public welfare through the prevention of the waste of oil and gas as natural resources, this rule has given rise to vested rights that under our constitutions cannot be taken away by statutory enactment.

Program Essential

In order to prevent waste in the production of oil and gas from a given pool or reservoir, the various leases or separate producing units therein must be developed under some program by which the wells may be properly distributed, the pressures controlled, the rate of withdrawals regulated, and all operating practices based on a proper relation to the physical conditions existing. The individual lease cannot properly be the unit of operation if this is to be brought about. Disproportionate withdrawals from a given lease or property will inevitably result in the dissipation of gas energy and the premature encroachment of water into the oil and gas reservoir. It will bring about a waste or destructive use of the energy of the pool rather than a correct utilization and conservation of such energy in the production of the largest amount of oil ultimately from the reservoir. Physical conditions and the protection of property rights make the entire pool in the very nature of things the unit of operation. The whole pool must be so operated as to utilize to the fullest extent the gas energy of the pool and cause the water table to rise uniformly rather than for it to rise irregularly through the coning of water around individual wells or by channeling its way through the oil-producing formation, trapping off the oil in the sands or other porous rock so that it may not be recovered. This operation of the pool as a unit may be obtained either by single ownership or by agreements between separate owners fixing a development and production progress, or by a program of operation established and enforced through the exercise of the police power of the state.

Unlike Other Industries

This condition, under which the separate tract of land or unit of ownership is not the natural unit of operation and by the same token not the natural unit of competition, does not exist in other mining industries, such as coal, for example, nor in the manufacturing industries. The coal miner may remove his coal without physical waste of coal or injury to his neighbor and in response to market demand without fear that his neighbor may capture the coal under his land. The manufacturer may produce or not produce, as he sees fit, dependent upon his hope of return in response to the demand for his product and upon the cost of its manufacture. If the oil producer in a pool under development should undertake to wait until prices are attractive or until there is a demand for his product, he will not only lose his oil to his neighbor who desires to produce but will, also, sit by while the energies in the reservoir for the production of oil are dissipated or misused. In the absence of agreement or some form of restraint upon operations in the pool, the individual operator, in order to protect his property rights in view of the physical facts, is required to produce whether he wishes to or not. Furthermore, his lessors and

royalty owners require him to produce in order to protect their property rights.

Any effort to stabilize the oil industry and to prevent the physical waste of oil and gas must prevent the unrestricted production of oil and must prevent the unratable production of oil. Both unrestricted production and unratable production in a given pool bring about the dissipation and misuse of the gas energy and water drive of the pool and result in the physical loss and waste of both oil and gas underground and the unnecessary accumulation of storage oil above ground, with the physical waste that results therefrom. These desired results can be accomplished only by limiting the production to the available market demand for oil and its products and by applying the restriction back against the various properties in the pool on a ratable basis. If the production is not limited to the available market demand, the physical conditions and rule of property lead the operators into a program of unrestricted production so far as the individual producers are able to secure a market. The fortunate producer who has a market will produce his properties offsetting those of the unfortunate producer who has no market, and the latter will be required either to produce his oil and store same or permit the producer having a market to take his oil by drainage and dissipate the energies of the reservoir. This applies to all fields entering into the supply of the aggregate market demand. In general, then, it may be said that the solution of the problem in hand is to limit production to market demand and to apply this limitation ratably as between the various states, districts and fields and as between the various properties in the same field.

Voluntary Co-operation

When presented with this problem and the suggested solution, the natural answer one makes is that it may be solved by voluntary co-operation and agreement among the producers: First, in the field where actual conditions of waste exist, by agreeing to limit production to the available market, controlling the location of wells, the various producing practices and methods, and the ratable participation of the various producers in the available market, thus making the field in fact the unit of operation and of competition; and, second, in areas where and in times during which overproduction exists, by agreements fixing and limiting the supply from all sources to the actual market demand for the products. In other words, the producers should agree upon a limitation of production to market demand and prorate this as between states, districts and fields, and within the field itself work out a program for production of the field as a unit to supply the amount allotted to such field.

There are serious difficulties involved in the effort to solve the problem by voluntary co-operation and agreement. In the first place, men differ as to the relative values and producing potentialities of their properties and in producing practices that should be followed. Some producers are not interested in the matter of ultimate recovery from the given pool, but are interested in securing only an immediate maximum quantity of oil for their own purposes. Some men are by nature pirates and are not interested in the good of the industry or of their neighbors, but prefer to run their own course even though it may be to the serious injury of their neighbors. The selfish interest of the individual under the operation of the physical laws and the rule of property set forth may lead the individual into the operation of his own property in his own way for immediate returns. It is not always possible, therefore, for the producers in a given field to reach any agreement as to the amount of production or the basis on which the restriction is to be applied as between properties; and agreements among units in the industry by which oversupply in general or in larger areas may be eliminated are even more difficult to secure. It is not intended here to minimize the importance of agreements between operators or the results that may be obtained thereby. It is only to point out that it is not always possible to secure such agreements.

Antitrust Laws

Even where agreements might otherwise be secured, they are not brought about because of the provisions of our antitrust laws. In some states the antitrust laws specifically prohibit agreements by which any product of the mine or factory is controlled, limited or decreased, or which carry out restrictions in the preparation of any product for market. These statutes are broad in their provisions; and in some states the so-called "rule of reason" is not applied. After production has been secured in a given pool, agreements between operators to limit the production of the field to a given figure, to limit the number of wells to be drilled, to control pressures, to equalize withdrawals and regulate in a practical way the producing practices in the prevention of waste, will of necessity control the quantity of the output. And while such agreements are in line with the accomplishment of the purposes of the conservation laws, they are considered by many lawyers to be in the teeth of the provisions of the antitrust laws. Hence, after a field is brought in, producers in the states where such laws exist are effectually prevented from entering into contracts for the accomplishment of programs for the co-operative or unit development of the field.

Furthermore, there is a widespread fear that agreements among producers in different states providing for limitation of production to market demand and an allocation of the market demand among the producers in the several states involved will constitute a violation of our Federal antitrust laws. This has the effect of preventing agreements between operators having in view the prevention of general oversupply.

Co-operation Insufficient

It follows that co-operation within the industry by itself cannot solve the problem; and this is true even if the unnecessary restraints of the antitrust laws were removed, although tremendous progress would be made by the removal of such restraints, as will be indicated more in detail below.

The next natural suggestion is that such programs may be established by the exercise of the police power of the states in protecting the general welfare by the prevention of waste and in protecting the correlative rights of the several producers in the given pool through the enactment and enforcement of adequate conservation laws. The police power inheres in the states; the Federal Government cannot exert this power in connection with the production of oil in the several states. The action of the several states cannot bring about the limitation of production in the country as a whole to the market demand for products in the country as a whole in the absence of some determination and allocation of the market demand as between the several states. This requires co-operation between the several states and between the operating units in the industry. Furthermore, as far as may be accomplished, it is desirable for the various operators in a given reservoir or pool to work out by voluntary agreement the methods of operation so as to bring about a ratable production of oil in the pool in such way as to do equity between the several owners and to prevent waste. Voluntary prevention of waste through the operation of the pool as a unit where it can be accomplished is preferable to involuntary operation under a program fixed by the exercise of the police power. The solution of the problem, therefore, depends both upon voluntary co-operation within the industry and the exercise of the police power of the State; and in order that the necessary voluntary co-operation within the industry may be had, the restraints of the antitrust laws must be removed so far as may be necessary for the accomplishment legitimately of the purposes in view.

The following is an outline of suggestions for the stabilization of production by curtailment to market demand and the prevention of physical waste accomplished by the application of the principles above stated:

A. There should be a limitation of production in South America and the other countries exporting to the United States, or of imports of such production into this country, through agreement of the producers or importers or a declaration of policy to this effect by each rigidly adhered to, this curtailment of production or limitation of imports to bear a reasonable percentage ratio to the degree of curtailment in this country. To make such agreement or declaration of policy effective Congress might empower the President to invoke a tariff on oil imports when the agreed percentage ratio is not maintained. Similar percentage ratios might well be agreed upon with other producing countries. Regulation of production in this country to reasonable market demand for the use and consumption of oil can only be accomplished when there is a like regulation of the inflow of oil from abroad entering into the supply of such market demand.

B. There must be a rigid curtailment in the several producing states of this country to market demand for consumption needs and the prevention of actual physical waste, accomplished:

Voluntary Action

1. By voluntary action.

(a) A constant program of education must be continued, leading to the adoption by all producing units of the intelligent policy of buying acreage with the thought of the unit operation of such acreage. This is important as a contribution toward unitization of pools, and tends to avoid widely scattered and divergent ownerships in each individual pool leading, as indicated above, to wild orgies of drilling and development, with resulting waste and overproduction.

(b) The unitization of pools by agreements of the separate owners of segregated tracts prior to development should be encouraged. Likewise unitization of pools by agreement of the separate owners after production is under way should be encouraged and made lawful. This would enable the operation of the pool under such circumstances as to produce the largest aggregate quantity of oil therefrom without waste and in response to the needs therefor.

(c) Where unitization cannot be fully secured, much can be accomplished by co-operative development and operation of pools through agreements between the owners of separate tracts in regard to the spacing and timing of wells, the maintenance of back pressures, the rate of production, the fuller utilization of the gas energy and water drive of the pool, repressuring, and other joint efforts to increase ultimate recovery and lower the costs of production.

(d) Appropriate legislation should be secured in the several states amending or modifying the antitrust laws to the extent that agreements along the lines above indicated are made lawful. In the public interest, such relief from the effect of the antitrust laws might be granted only when such agreements are approved by the conservation agencies of the states. New Mexico and California have already enacted legislation of this character.

(e) In times of general overproduction, agreements between the units in the industry should be made regarding the extent of curtailment necessary to reduce production to market demand for consumption needs and to allocate this as between producing areas, with the necessary arrangements for carrying out the reduction and allocation. Modification of the Federal antitrust laws and of the antitrust laws of the several states should be secured authorizing or permitting such agreements. If it is deemed that the public interest requires the supervision of such agreements, a fact-finding body such as the Federal Oil Conservation Board or an interstate commission referred to later, might be authorized to find whether or not such a state of general overproduction exists and to authorize the agreements, with resulting freedom from liability under the antitrust laws.

Police Power

2. By the exercise of the police power.

(a) Ascertainment by an interstate committee representing the conservation bodies and/or the governors of the several states working with the Bureau of Mines, the Federal Oil Conservation Board and other Federal agencies that may be able to help, and with the American Petroleum Institute and other organizations within the industry, as to what is the market demand to meet consumption needs. As time goes on this can lead to the creation of an interstate commission as a result of a compact between oil-producing states along the lines indicated in the outline presented by Mr. Wilbur, Secretary of the Interior, on which would be representatives from each state, and with a representative from the Federal Government sitting in.

(b) There should be an allocation by such interstate committee or commission, so far as is practicable, of a fair participation in the market demand by the various states, considering the potential production, the natural markets, the age of fields, and other factors properly having a bearing upon the place in the market which each state should have. This may not be hard and fast, but at any rate should be suggestive and determined after careful consideration of all conditions.

(c) Proration involving curtailment to reasonable market demand and ratable withdrawals by the separate owners in each pool should be aggressively enforced in each state.

Conservation Agencies

(1) Nonpolitical conservation agencies should be established in each state, composed of oil men appointed for long terms and at adequate salaries to insure the selection of capable men.

(2) The conservation statutes in the several states should be strengthened where necessary to give adequate authority to such conservation agencies to prevent the physical waste of oil and gas and to enable the carrying out of effective proration efforts along the lines herein indicated. These statutes should authorize limitation of production to market demand and should clearly invest the conservation agencies with the authority to lay down and enforce regulations designed to avoid waste in the development and operation of each pool by the enforcement against each operator and prospective operator of a program of operation which shall enable the development of the pool in such way as will fully utilize and conserve the common gas energy and the common water drive of the pool so as to protect the correlative rights of all owners in the pool in the enjoyment of the full utilization of these forces and prevent any single operator from so operating his property as to dissipate or place in operation in a destructive way these two vital sources of energy by which all operators in the pools are enabled to recover the oil rightfully belonging to them. They should, also, contain adequate procedural provisions by which the conservation agencies may not have their hands tied while their proration orders are under attack in the courts, as otherwise unlimited waste ensues during the period of attack upon the orders.

(3) Study should be made with a view to working out from time to time a fair participation by the various fields in the state, flush fields to bear most of the curtailment and methods to be adopted as far as possible to prevent waste incident to the abandonment of small scattered fields in the oil-producing areas. This requires co-operative effort on the part of the producers and purchasers of crude and the conservation agencies involved.

(4) Waste incident to increasing storage should be prevented, and absolute prohibition should be made and enforced against additions to storage except as may be necessary to physical operating conditions.

(5) Proration of fields to market outlet as developed after proper allocation

in line with the above, contemplates a proportionate restriction upon leases or a proportionate withdrawal therefrom with each producer or property sharing in the market to the extent or his or its allowable production.

Definite Proration Policy

(6) A definite policy of prorating immediately all new fields on an average potential per unit basis or some other plan carefully worked out in the light of the situation likely to obtain in the particular field involved so as to discourage unnecessary and expensive drilling with the unnecessary wastes and costs incident therto. A program for the orderly development and operation of the pool so as to conserve the gas energy and water drive of the pool and insure ratable withdrawals and the largest ultimate recovery, should be worked out and rigidly prescribed and enforced by the conservation agency before operators have spent their money in the drilling of unnecessary wells and in starting a program which, if followed by themselves and other operators offsetting them, will necessarily result in waste. This can be aided by the conservation agency requiring each operator as prerequisite to the granting of the original permit for the drilling of the initial well to submit data and information regarding his holdings and plans and to prevent production by any wells until such time as the conservation agency can develop a set of rules or regulations requiring the development of the field in accordance with recognized principles for the prevention of waste.

(7) Requirement should be made that all flowing wells should be properly tubed and all mechanical equipment be supplied to insure proper maintenance of back pressures and to prevent the wells from escaping control, and that the waste of gas and the gas energy of the pool be rigidly prohibited, both from oil wells and gas wells.

(8) Study should be devoted to the question of efficient drainage limits as the basis for the adoption of rules prescribing the proper spacing of wells so as to eliminate unnecessary drilling and, if possible, provide for one basis of spacing in the early stages of a field's development with closer spacing as may be necessary later on to permit maximum recovery. This last would probably not be advisable in some of the more porous formations. In porous formations well spacing should be extended to, say, 400 or 600 feet or such distance as may be determined to be the proper limit of drainage for efficient utilization of the gas energy and water drive.

(9) Requirement should be made for the ratable purchase of natural gas so as to prevent inordinate takings in localized areas in a field, which has the effect of dissipating the gas energy and of causing premature and disorderly encroachment of water, with resulting waste.

So Owner Can Enjoin

(d) As a part of the conservation laws of each state and as an aid in their enforcement and in assuring equity between owners in the pool, there should be enacted an express provision by which one landowner or his oil and gas lessee may enjoin an adjoining landowner or his lessee from producing oil on the latter's land in excess of the allowable production fixed in the order or regulation of the conservation agency where it is shown that the production of such oil results in drainage from beneath the land of the complainant, and, further, that the complainant may recover in damages as for willful conversion for the value of all oil so drained by the operation in violation of the conservation agency's order and, also, in damages for injuries and losses from the dissipation of the gas energy, the encroachment of water, or other results reducing the ultimate recovery of oil from the land caused by the operation in violation of the order or regulation. The complainant should be given a lien against the property of the offender upon the filing of suit and lis pendens notice to secure the payment of the damages so sustained.

The suggestion for the enactment of a statute as indicated in the last preceding subdivision of the above outline arises out of the rule of property referred to in the earlier part of this paper by which, subject to the valid exercise of the police power, one who drills a well on his own land becomes the owner of the oil produced through same even though it may be drained from beneath the lands of another. This rule of property is in effect a rule of convenience, originally adopted by the courst on account of the fact that there was not available accurate scientific data and information regarding the nature and habits of oil and gas underground, and is in conflict with an equally well-established rule of property in some jurisdictions to the effect that the owner of a tract of land is the owner of the oil and gas in place beneath same. These two rules stand alongside each other in the same jurisdiction. In other jurisdictions the owner of a tract of land does not own the oil and gas in place beneath it, but only has the right to take such minerals by operations conducted on his land. In the light of the scientific information and knowledge available in the production of oil from reservoirs today, it can be determined with approximate certainty what is the quantity of recoverable oil underlying each tract of land in the reservoir. The rule of convenience set forth above should have no application in the light of present-day knowledge. The rule of property perhaps ought to be that the owner of a tract of land owns the oil and gas in owners in the pool. It may be that on titled to secure that oil or the same quantity of oil under conditions that will protect the correlative rights of all landowners in the pool. It may be that an account of the conflict between two established rules, one fundamental in nature and the other one of convenience, in certain jurisdictions the legislature could enact a law fixing the rule of property on the fundamental basis without impairing vested rights in violation of the Fourteenth Amendment to the U. S. Constitution. In any event, if this cannot be done, it is believed that in the exercise of the police power the state can adjust and protect the correlative rights of various owners in the pool and protect the public welfare by the enactment of police regulations restricting operations in the pool so as to preserve to the use of all operators in the pool in a legitimate way the gas energy and water drive of the pool and prevent waste therein and accord to each landowner protection against the adjoining landowner in the form and along the lines set forth under the last numbered subdivision of the outline above given.

Summary and Conclusions

By way of summary, then, it must be understood that the problem of the stabilization of the oil industry and the prevention of waste of the oil and gas resources of the country is not a small one, but requires a procedure along the following lines:

(1) The industry and the public must be fully educated to the new conception, which requires the full utilization and conservation of the gas energy and the water drive of the oil and gas pool in order to prevent waste and insure the largest ultimate recovery of both products and to bring about the enjoyment by each owner in the pool of the oil and gas which rightfully belong to him, being the quantity of oil and gas originally in place under his land before conditions in the pool were disturbed. This education will naturally lead into efforts for the co-operative development and unitization of pools.

(2) Keeping in mind the public interest, the restraints of the antitrust laws, both state and Federal, must be removed so far as may be required to enable all necessary agreements between operators for the co-operative development or unit development and operation of the single pool, and in times of oversupply curtailment of production to reasonable market demand with proper allocation as between states and pools.

(3) The enactment of adequate laws investing the conservation agencies of the several states with authority to limit production to market demand and apply the restriction to the several fields involved and ratably as between properties in each field with adequate provisions for the doing of all that is necessary to prevent physical waste and with proper procedural provisions preventing the violation of the conservation agencies' orders during the tests of their validity in the courts. This contemplates the establishment of interstate committees, or, in the end, of an interstate compact by which information as to the proper participation in the market demand for consumption needs by the several states may be gathered and adopted by the conservation agencies of the several states, and contemplates a proportionate limitation of imports from abroad and statutory provisions in the several states by which one landowner is entitled by injunction and in damages to protect himself against drainage or damage to his property by operations of his neighbor in violation of the conservation agencies' orders.

In approaching this problem one must never lose sight of the fact that all owners in a given pool are bound together by the character and habits of oil and gas underground and the common gas energy and water drive of the pool and the absolute necessity that the correlative rights of the various owners must be adjusted and the general welfare protected through the prevention of waste. These are fundamental.

Many Things Have Happened During Drilling With Cable Tools in Alberta Well

By L. G. E. BIGNELL
Petroleum Engineering Editor

In the Province of Alberta, Canada, there are a considerable number of wells being drilled with cable tools and one of them, the Ranchmen's Gas & Oil Co.'s No. 1, located near Alderayde, south of Calgary, has furnished an excellent example of how many things can happen. Trouble has been very common to the drilling operations in this hole and the following recital of some of them has been furnished The Oil and Gas Journal by A. P. Phillips, now in charge of drilling there.

The company was organized largely through the efforts of Ed Kenney and through his untiring work the project has been kept alive, although it would seem that at times a less determined man would have given up in disgust.

But let Mr. Phillips tell the story of the well which was started in 1926 and has been drilling, shut down, started up and changed crews a number of times to date.

He says: "I believe that everything that could happen to a drilling well or company has happened on this particular hole.

"Not knowing just how far or deep they would have to drill they decided to start with 24-inch hole and set 250 feet of 20-inch pipe.

Advice From Friends

"After getting started they were advised by some good friends, who thought they had a line on the formations and strata, to run the 12½-inch pipe next, thereby reducing their hole at the start as they had an idea they would get the sand at 2,000 feet. After carrying the 12½-inch string down to 1,272 feet and the hole caving they had to start the 10-inch casing and they carried this to 2,202 feet and encountered troubles there by caving and lost their tools.

"After some time and a great deal of trouble they recovered the lost tools.

"Then they ran their 8⅝-inch pipe and underreamed and carried this string to 2,800 feet where it froze and it was pulled in two trying to free it. After running a die nipple the crew succeeded in screwing together the 8⅝-inch pipe and then ran their 6⅝-inch string of casing.

"Things then went all right for a while and at about 2,900 feet they pulled the crown block in and dropped the pipe. This time they collapsed the pipe and had to run a swage through it which was a long job.

"But they got going once more about December 28, 1928.

"Here they changed their crew or hired a new bunch of 'guessers,' as 'Frosty' Martin calls the drillers, and started once again. The pipe was pulled again and rerun back to 2,860 feet on March 2, 1929, and then carried down to 3,442 feet where it froze once more and in trying to free it they again parted the pipe.

"Here they again changed crews and then lost the top of the pipe where it had parted and thought they were cleaning out inside of the 6⅝-inch. Mr. Kenney thought they were doing the wrong thing and suggested that they try an 8-inch bit and they then found they were outside of the pipe all the time. So they ran the 6⅝-inch casing back and sidetracked 600 feet of pipe and landed this string at 3,800 feet, where it froze once more.

"Drilling was carried on in open hole to 3,900 feet where they lost the tools on account of the hole caving in on them. After cutting the cable they took hold with fishing string and after jarring for some time the jars quit and they switched the line off.

"They tried to drill by but had to give up and Mr. Kenney hired a new toolpusher from the Turner Valley Field. He cemented the tools in and started to drill by but could not on account of the same old cave.

"The company then cleaned house once more but kept one young driller who had done good work up to that time.

Poured Cement Down Hole

"He decided to cement the cave off. A cement bailer was secured for this purpose, but instead of using it, he listened to the advice of a friend who told him to pour the cement in as he figured it would take too long to put it in with a bailer. This pouring method was tried and did not prove successful.

"About 60 bags of cement was poured down the 3,800 feet of 6⅝-inch casing and to clean the pipe and wipe down the cement gunny sacks were rolled up and forced down the hole. The tools went down all O. K. but on the return trip they came back up 150 feet inside the 6⅝-inch pipe and stayed there. The crew switched for a long time but the cement was sliding down and piling up on top of the tools in the pipe and this cemented them in to stay."

Mr. Kenney next hired Mr. Phillips to take charge of the work and in spite of the predictions that there was no use to try to do anything more as the pipe was frozen and could not be pulled and that the tools could not be taken out of the

(Continued on Page 30)

Withhold Tentative Approval of C. F. R. Test Procedure Pending Further Road Data

ATLANTIC CITY, N. J., June 24.—The present C.F.R. procedure for determining the octane number of motor fuels was not adopted as a tentative method of test by the A.S.T.M. Committee D-2 at its meeting in Atlantic City June 20 to 24 as many had hoped. Objection to the present procedure was raised, as had been done at previous meetings of refinery and automotive technical groups, based on the fact that laboratory results do not agree with road test results. A further study of road test results will be made and additional data will be collected to determine optimum operating conditions when making the laboratory test in order to bring the two sets of results closer.

The unanimous endorsement of the following resolution as passed by the A.S.T.M. Committee D-2 clearly states the status of the work and the attitude of the committee at this time.

"Committee D-2 endorses the C.F.R. engine for measuring octane numbers of motor fuels. Procedure conditions, such as engine speed and operating temperature are being studied intensively by the detonation subcommittee of the co-operative fuel research committee in conjunction with road tests. It is expected that results of this work will permit establishment of an A.S.T.M. tentative method of test in the near future. No changes in engine design are anticipated."

It will be remembered that at the recent meeting of the American Petroleum Institute in Tulsa and also at the several Society of Automotive Engineers meetings within the past year that strong objections were made to the present method of determining the antiknock value of motor fuels and these objections were championed by representatives of the Ethyl Gasoline Corp. and the Standard Oil Co. of New Jersey.

A large number of refiners, and many of them Ethyl Gasoline licensees, favored the adoption of the present C.F.R. method of test because they felt that the changes the opponents recommended would penalize the refiners more than justifiable. The opponents favored adopting 362° F. as the prescribed jacket temperature and 900 r.p.m. as the motor speed. The present test prescribes a temperature of 205° to 215° F. and a speed of 600 r.p.m. The passing of the above resolution by D-2 is interpreted as leading to a compromise and many feel that some change will be effected in the future and as soon as more complete road test data are available.

Fear has previously been expressed that because an agreement was lacking among refinery and automotive technologists that the A.S.T.M. would not adopt as tentative, the procedure of the C.F.R. Now that the A.S.T.M. has voted not to adopt this procedure the indefiniteness that has been apparent in discussion of motor fuel octane values will continue and impairs the effectiveness of the term in marketing.

To alleviate this condition the A.S.T.M. is publishing the C.F.R. test procedure in its original form and has prefaced it with a statement that although endorsed, the tentative standard awaits further consideration of the proper jacket temperature and engine speed.

Gum Test

The gum question was also covered rather thoroughly in the report of this committee. Two methods for determination of gum content or so-called "preformed" gum are published for information. One of these is the air jet method involving rapid co-operation on a steam bath, while the other involves the same principle, using a specially developed bath at a temperature of 380° F. Further work is to be done toward the eventual adoption of one or the other of these methods as a standard. The study of gum tolerance has received further attention and co-operative tests were presented, indicating a gum content of 10 mg per 100 cc. by the first of the above methods as about the upper limit for satisfactory performance; however, no final decision is reached on this question. The matter of gum stability was also discussed, principally on the basis of preliminary results on test method obtained at the Bureau of Standards.

Following are the proposed test procedures for determining preformed gum in gasoline which will be tried by the industry and results reported at a future meeting of the A.S.T.M. for consideration as a basis for making one of them a tentative standard.

Prepared to Give Demonstration of Knock

ATLANTIC CITY, N. J., June 24.—T. A. Boyd, newly elected chairman of the Committee D-2 (Petroleum Committee) of the American Society for Testing Materials now has the equipment to give a practical demonstration of the contrast between knock and antiknock in motor fuels, which was one of the principal subjects discussed at the annual meeting held here this week.

At the dinner held in his honor, Frederick Kenney, in behalf of the membership of the committee, presented Mr. Boyd with a gavel. One of the striking faces is made of ebony and the other rubber. The ebony face when used results in a knock which resembles a low octane gasoline in a high compression engine of a car moving up a steep grade. In contrast the rubber face was guaranteed to perform in a manner characteristic of the best antiknock gasolines. In the hollow handle of the gavel, a receptacle holds a scroll on which is inscribed the names of the participants in the dinner. Dr. T. H. Rogers of the Standard Oil Co. of Indiana served as toastmaster at the dinner.

Mr. Boyd for several years has headed the motor fuel research of the General Motors Research Corp. Due to this work he is widely known among refinery technologists. Other officers elected were: Chairman, T. A. Boyd, General Motors Corp.; vice chairman, T. G. Delbridge, Atlantic Refining Co.; secretary, R. P. Anderson, American Petroleum Institute; advisory subcommittee, Harold Farmer, Philadelphia Electric Co.; Frederick Kenney, New York City Central Testing Laboratory; K. G. Mackenzie, The Texas Company: G. G. Oberfell, Phillips Petroleum Co.; R. M. Wilhelm, C. J. Tagliabue Manufacturing Co.

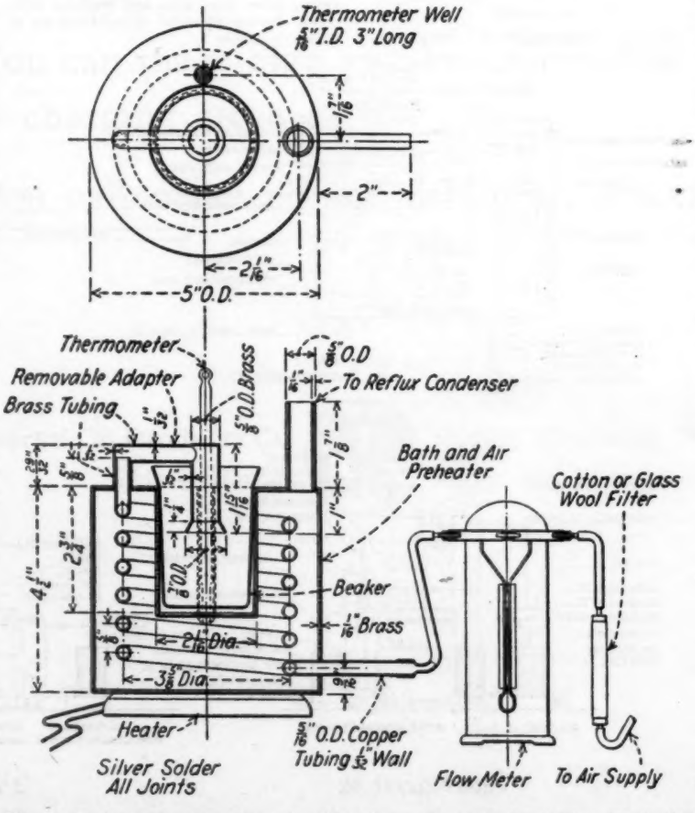


Figure 1—Apparatus for determination of gum content of gasoline, Method B

Method A

1. Apparatus.—The apparatus shall consist of the following:

(a) Dish.—Flat-bottom glass dish of heat-resistant glass, 80 to 90 mm. in diameter at the top, 45 to 50 mm. in depth and approximately 50 mm. in diamter at the bottom.

(b) Steam Bath.—The design of steam bath is optional. It should be provided with holes of such size that the dishes will be immersed to a point from 1 to 2 cm. from the top.

(c) Air Supply.—Low-pressure air, passing through cotton or glass-wool filter to a glass delivery tube one-half inch inside diameter. A flow meter or other air-measuring device shall be provided.

2. Procedure.—The dish shall be washed free from gum with benzol-alcohol, soaked in chromic-acid cleaning solution, rinsed with water and dried in an oven for 20 minutes at a temperature of from 300 to 310° F., after which it shall be allowed to cool for at least one hour in a desiccator. If the air in the balance to be used is dried with a desiccant then this same desiccant shall be used in the desiccator; otherwise no drying agent shall be used in the desiccator. The dish shall then be weighed, all weighings being made by tare against a similar dish which has been subjected to exactly the same treatment (omitting the gasoline) at exactly the same time as the test dish. The same dish may be used as a tare for more than one test dish, but not for more than six test dishes provided all are heated at the same time. Strict attention shall be given to these details of weighing in order to provide the accuracy necessary when low gum contents are involved.

After weighing, the dish shall be placed on the actively boiling steam bath, the other openings of the bath being kept loosely closed. A 50-ml. sample of gasoline shall then be poured into the dish and the air jet placed vertically above the center of the surface of the gasoline, the outlet being 2 to 4 inches above the surface of the liquid. The rate of air flow shall be adjusted so that, without causing loss of liquid by splashing or creeping, evaporation to "dryness" is completed in 10 to 20 minutes. To satisfy these conditions the air rate shall be 1 liter per second, ±25 per cent. During the evaporation, the air rate and the height of the outlet may be adjusted within the specified limits to facilitate completion of the evaporation in the required time.

After the evaporation, the outside of the dish shall be wiped dry and examined for evidence of loss by creeping, any test which shows evidence of such loss being rejected. The dish shall then be dried in an air oven at a temperature of from 300 to 310° F. for exactly one hour. The dish shall then be allowed to cool for at least one hour in the desiccator and weighed as described above.

3. Results.—Results shall be expressed in milligrams of gum per 100 ml. of gasoline.

Method B

4. Apparatus.—The apparatus shall consist of the following:

(a) Beaker.—Berzelius-type beaker of heat-resistant glass, without lip, of 100-ml. nominal capacity.

(b) Bath.—The bath shall be in accordance with the design shown in Figure 1. About 800 to 1,000 ml. of ethylene

(Continued on Page 30)

Effect of Ribbed Surfaces on the Heat Transfer Rates in Cast Iron Condenser Sections

By C. A. OLSON and R. S. WENTWORTH
National Radiator Corp.

In designing a submerged oil vapor condenser and cooler, consideration must be given to the viscosity, density, temperature and velocity of the oil vapor, and to the content of noncondensables in determining the type of surface on the interior of the section, and to the temperature and velocity of the cooling water in determining the character of the exterior surface.

So little is known of the cumulative effect of this large number of variables that it is difficult, at best, to predict results by theory alone. Results obtained with one set of conditions may appear out of line with results obtained with another set of conditions.

If we limit our investigations to cast iron condensers submerged in slowly moving water, predictions can be made regarding the effect of finned, or ribbed, surfaces as applied to the inner or outer walls, and the predictions verified by tests.

Method of Approach

The resistance concept, as used by Walker, Lewis and McAdams in Principles of Chemical Engineering, appears to be the easiest means of investigating results. The method, analogous with electrical computations, by considering total resistance as the reciprocal of the total conductivity and equal to the sum of all individual resistances permits an analysis of the whole by inspection of each of several component parts.

In the case of an oil vapor condenser, the total resistance to the flow of heat is the sum of the vapor film resistance, the metal resistance and the cooling water film resistance.

The resistance formula is, therefore:

$$R_T = r_v + r_m + r_w$$

and the conductivity can be expressed as

$$C_T = \frac{1}{R_T}$$

Wherein:

R_T = Total resistance of the condenser.

C_T = Total conductivity of the condenser.

r_v = Resistance of the vapor film per square foot.

r_m = Resistance of the metal per square foot.

r_w = Resistance of the water film per square foot.

It should be borne in mind that just as the total resistance of two identical electric wires is one-half of the resistance of one of those wires, that the film and metal resistance of 2 square feet of surface is one-half that of 1 square foot of surface, and therefore, the resistance per square foot of film or metal divided by the number of square feet of film or metal in the condenser gives the film or metal resistance of the condenser.

This can be expressed in the following formula:

$$R_T = \frac{r_v}{\text{sq. ft. vapor area}} + \frac{r_m}{\text{sq. ft. metal area}} + \frac{r_w}{\text{sq. ft. water area}}$$

Assumed Factors

Walker, Lewis and McAdams and other authorities are generally agreed on a conductivity factor for steam film of 2,000 B.t.u./hour/square foot/°F. and a conductivity factor for cast gray iron of 36 B.t.u./hour/square foot/°F./foot of thickness.

TABLE 1

Sections—	Weight pounds	External surface square feet	Internal surface square feet	Wall thickness inches
Ribbed exterior and smooth interior	156	14.4	6.45	.375
Smooth exterior and smooth interior	128	9.3	6.45	.375
Smooth exterior and ribbed interior	143	9.3	8.48	.375

These factors will be used as a basis of calculations.

Determining Film Resistances

Based upon the assumption that the above two factors are reasonably correct, tests were run to determine the water film resistance of test sections and by using this and the other known factors in the resistance formula determine the oil film resistance.

It was not sufficient to run a test on a section having a smooth exterior surface and by assuming reasonable values for the resistance of vapor film and metal arrive at a value for the resistance of water film since this would presuppose that the resistance of the water film is a constant regardless of whether or not ribs were used on the surface in contact with the cooling water. On the other hand, it was necessary to compare values for the water resistance for both the smooth and the ribbed exterior surfaces when submerged in slowly moving water.

The resistance of the steam film and the metal must first be determined.

STEAM FILM RESISTANCE — The resistance of a film being the reciprocal of its conductivity, the resistance of the steam film is:

$$r_v = \frac{1}{c_v} = \frac{1}{2{,}000}$$

$$r_v = .0005$$

METAL RESISTANCE — The metal thickness in the walls of the test sections was three-eighths inch.

Since the conductivity of metal increases inversely as its thickness, the conductivity of the metal is determined as follows:

c_m = Conductivity of metal per square foot.

The conductivity of gray iron is:

36 B.t.u./hour/square foot/°F./foot of thickness.

$$c_m \text{ for 1-inch of metal} = \frac{36}{\left(\frac{1}{12}\right)}$$

= 432 B.t.u./hour/square foot/°F.

c_m for three-eighths inch of metal = $\frac{432}{\left(\frac{3}{8}\right)}$ = 1,152 B.t.u./hour/square foot /°F.

The metal resistance is, therefore:

$$r_m = \frac{1}{1{,}152} = .00087$$

Test Sections

To determine, as accurately as possible, the water film and oil vapor film resistances, three gray iron test sections were made, having physical characteristics as shown in Table 1.

The mean metal surface area is slightly greater than the arithmetical mean of the exterior and interior surface areas and is different for each of the three sections. The mean area of 8 square feet for the section with both surfaces smooth is used as a constant for all sections because any increase in the metal resistance that results from the addition of ribs should be charged to the ribs. It should be noted that the metal resistance is usually the smallest of the three resistances.

Since the investigation was concerned with the effect ribs had on the conductivity of a section, great care was exercised to make all three exactly alike except for the ribs.

All sections were tested singly, in the same test setup, first with steam vapor and then with 45° A.P.I. oil vapor. The essential data concerning these tests are shown in Table 2.

Test Apparatus

The drawing, Figure 1, illustrates the arrangement of the test apparatus.

Briefly, the oil was vaporized in a gas fired flash boiler (tube still), the vapors passing directly to a separator and then into the test section located in a typical condenser box overhead. The box was 66 inches long by 42 inches wide and 48 inches high. The arrangement of the section in the box approximated refinery operating conditions.

The vapor and condensate pipes passed through water-tight metal sleeves in the water zone. The spaces between the pipes and the sleeves were packed with an insulation material. In this way heat was dissipated to the water only by the section under test.

Temperatures were read from chemical thermometers that were placed with their bulbs in direct contact with the fluids.

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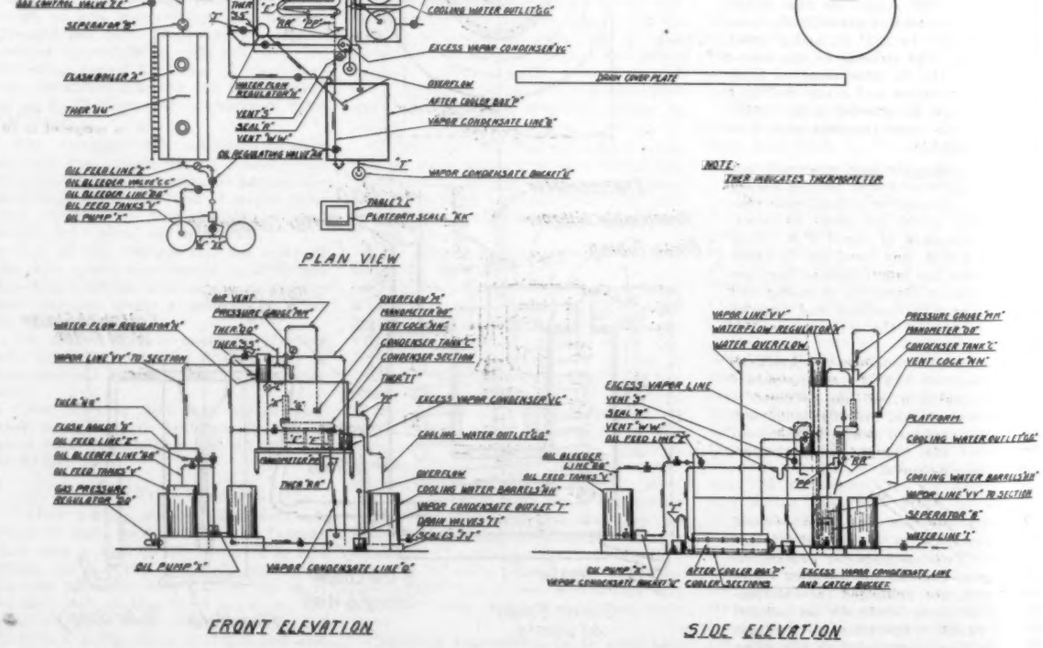

Figure 1—Arrangement of equipment for conducting heat transfer tests

A Dubbs cracking unit today is a whole refinery and Dubbs royalty rates fit in with the harsh economy budgets of the times

You can skim crude oil in a Dubbs unit royalty-free (if you must skim it)

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The section under test was occasionally vented at the inlet connection and constantly vented at the outlet connection. The condensate and cooling water were weighed on calibrated scales.

Figure 2 shows test section with exterior ribs. The dimensions apply to all three sections which were alike in every respect except for the ribs.

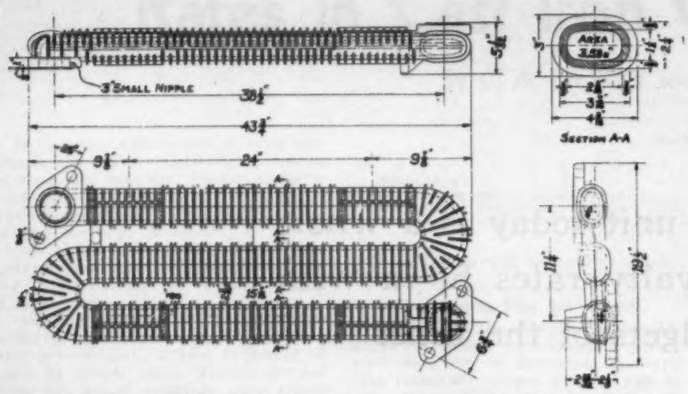


Figure 2—Specially designed exchanger section with ribs on outside

The data from Table 2 which concerns test No. 1 shows the conductivity of the section with a ribbed exterior and a smooth interior to be 1,154.8 B.t.u./hour/°F. when condensing steam. Therefore, the total resistance of the section is

$$R_T = \frac{1}{1{,}154.9}$$

$$R_T = .000865$$

Having accepted the value of r for the steam film to be .0005 and the r for the metal to be .00087, the r for the water film can be determined as follows:

$$.000865 = \frac{.0005}{6.45} + \frac{.00087}{8.0} + \frac{r_w}{14.4}$$

Therefore,

r_w for the ribbed exterior = .00077

Water Film Resistance—Smooth Exterior

The data from Table 2 which concerns test No. 2 show the conductivity of the section with a smooth exterior and interior to be 1,161.4 B.t.u./hr./°F. when condensing steam. Total resistance of the section is

$$R_T = \frac{1}{1{,}161.4}$$

$$R_T = .000861$$

To determine the water film resistance:

$$.000861 = \frac{.0005}{6.45} + \frac{.00087}{8.0} + \frac{r_w}{9.3}$$

Therefore,

r_w for the smooth exterior = .006273

Oil Vapor Resistance—Smooth Exterior

Having established the water film resistance of .006273 for the section with a smooth exterior, tests were run to determine the total conductivity (C_T) of the section with smooth exterior and interior surfaces when condensing a 45° A.P.I. oil vapor.

The data from Table 2 concerning test No. 4 shows the conductivity to be 543.7 B.t.u./hour/°F. Therefore the total resistance is

$$R_T = \frac{1}{543.7} = .001839$$

and the resistance r_v of a 45° A.P.I. oil film is

$$.001839 = \frac{r_v}{6.45} + \frac{.00087}{8.0} + \frac{.006273}{9.3}$$

$$r_v = .006811$$

This value of .006811 for the oil vapor film resistance (r_v) is used as a constant in this investigation.

It was determined by test that the r_v for the test sections were as follows:

1. With External Ribs ..... .006980
2. With Smooth Surfaces ..... .006811
3. With Internal Ribs* ..... .006699

*It is noted that the resistance of the film on the ribbed interior surface is less than the resistance of the film on the smooth interior surface. This probably is explained by the fact that the section with internal ribs was also equipped with six pairs of swirler fins which created a turbulence even at the low pressure at which the tests were conducted. This turbulence reduced the thickness of the film and therefore reduced the resistance of the film.

Resistance and Conductivity—Ribbed Exterior

Having now determined the various resistances, the total resistance of the section with a ribbed exterior and smooth interior can be determined by inserting these values in the resistance formula

$$R_T = \frac{.006811}{6.45} + \frac{.00087}{8.0} + \frac{.00977}{14.4}$$

$$R_T = .001844$$

The predicted conductivity is therefore,

$$C_T = \frac{1}{.001844}$$

C_T = 542.3 B.t.u./hr./sec./°F.

This prediction of 542.3 B.t.u./hour/section/°F. agrees very closely with the test result of 536.4 B.t.u./hour/section/°F. as shown by test No. 3 in Figure 4, and is 1.1 per cent in excess of the actual test performance.

Resistance and Conductivity—Ribbed Interior

The total resistance (R_T) of the section with a smooth exterior and a ribbed interior is

$$R_T = \frac{.006811}{8.48} + \frac{.00087}{8.0} + \frac{.006273}{9.3}$$

$$R_T = .001587$$

Therefore the predicted conductivity is

$$C_T = \frac{1}{.001587}$$

C_T = 630.1 B.t.u./hour/section/°F.

The conductivity determined by tests is 635.2 B.t.u./hour/section/°F. (see test No. 5, Table 2) which shows the predicted result in this case to be .8 of 1 per cent less than the test results.

It is to be noted from the test data that the quantity of cooling water circulated was approximately 25 per cent less in test No. 5 than was circulated in tests No. 3 and No. 4. It is reasonable to assume that had the same quantity of water that was circulated in tests No. 3 and No. 4 been circulated in test No. 5, the total conductivity would have been greater.

Confirmation by Tests

The findings of this investigation were applied to the design of a commercial section shown in Figure 3.

In this section the exterior surface was smooth with an area of 9.87 square feet. The total area of the interior surface, which was equipped with ribs and swirlers, was 10.96 square feet. The weight was reduced to 123 pounds.

Tests of this section when condensing 45° A.P.I. oil vapor showed its rate of heat transfer to be as high as 898.8 B.t.u./hour/°F./section and 7.3 B.t.u./hour/°F./pound of metal.

It would appear these data confirm the statement that the proper application of internal ribs and swirler fins in an oil vapor condenser and cooler having a smooth exterior surface greatly increases the rate of heat transfer.

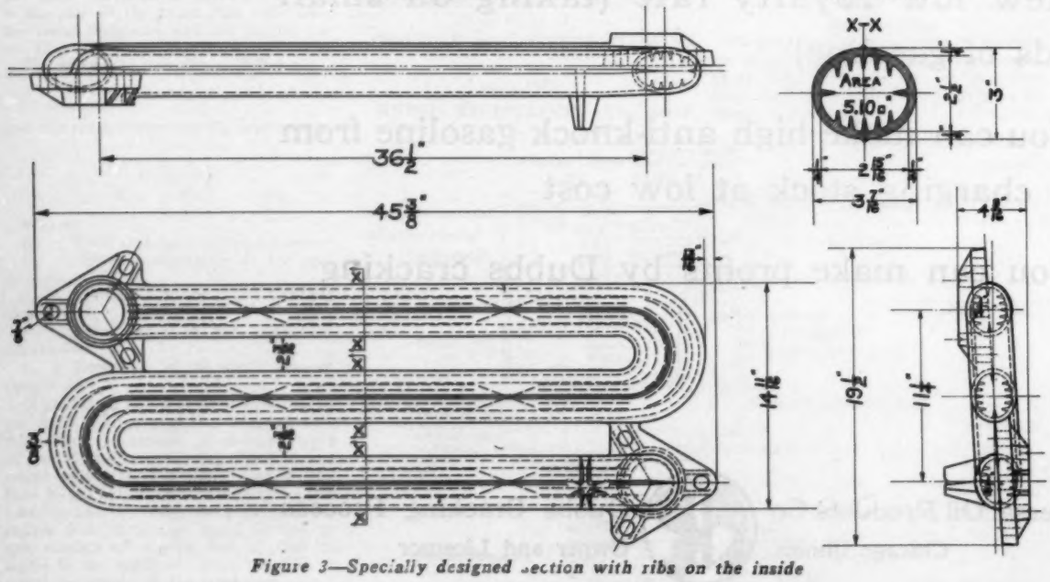


Figure 3—Specially designed section with ribs on the inside

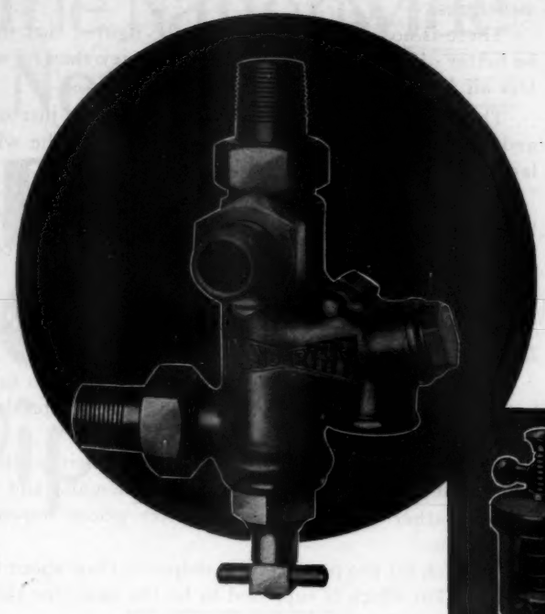
Conclusions

The results of this investigation show the following:

1. Predictions can be made regarding the effect of ribbed surfaces as applied to the inner or outer wall of a submerged cast iron condenser, and the predictions verified by tests.
2. Ribs on the external surface of a submerged cast iron condenser increase the exterior surface area but are of no practical value in increasing the rate of heat transfer.
3. Ribs and swirler fins on the interior surface of a submerged cast iron condenser increase the interior surface area and very materially increase the rate of heat transfer.

TABLE 2—HEAT TRANSFER TEST DATA

Test	Section—	Weight of section, lbs.	Vapor condensed	Vapor Temp. °F. in	Vapor Temp. °F. out	Vapor lbs./hr.	Cooling water Temp. °F. In	Cooling water Temp. °F. Out	Cooling water Per hour Lbs.	Cooling water Per hour B.t.u.	Log. mean temperature difference	Water B.t.u./°/hr. Section	Water B.t.u./°/hr. Lb. of iron
1	Ribbed Exterior and Smooth Interior	156	Steam	214 0	213	141.25	67.0	121 0	2,433.5	136,276	118.0	1,154.9	7 40
2	Smooth Exterior and Smooth Interior	128	Steam	212.5	211 1	143 25	65 6	122 0	2,386.6	134,604	115 9	1,161.4	9 07
3	Ribbed Exterior and Smooth Interior	156	Oil 45°A.P.I.	645 7	349 7	704 3	61 0	110.7	4,305.8	214,197	2,99.3	536.4	3 44
4	Smooth Exterior and Smooth Interior	128	Oil 45°A.P.I.	704 3	349 0	657.6	60 0	115.5	4,128.4	229,126	421.4	543 7	4.25
5	Smooth Exterior and Ribbed Interior	143	Oil 45°A.P.I.	666.3	300.8	704.5	61 0	134.8	3,155.4	232,868	366.6	635.2	4.44



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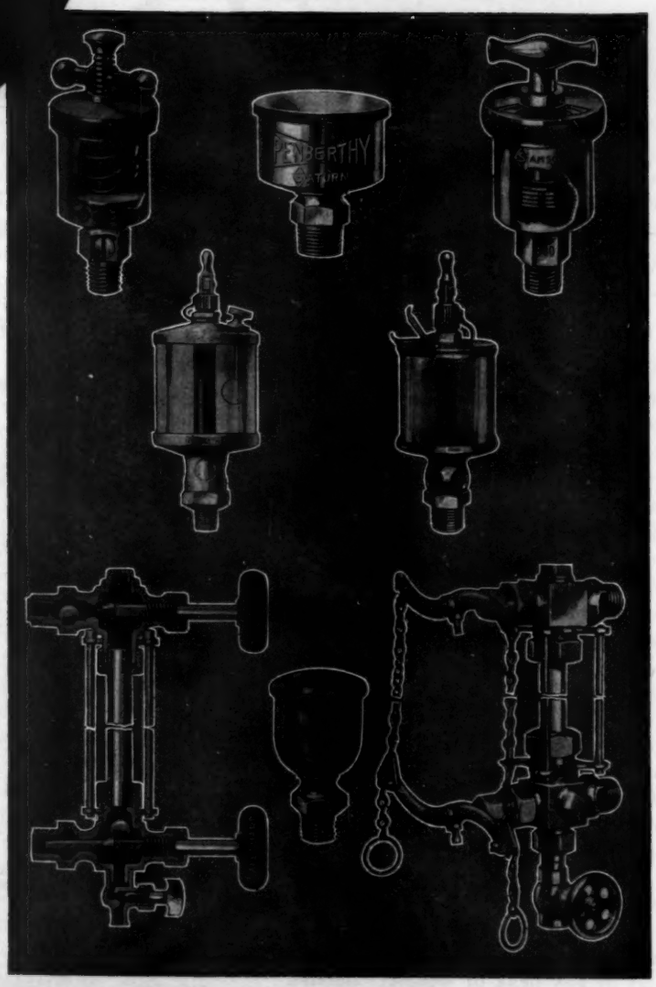

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Published Weekly by

THE PETROLEUM PUBLISHING COMPANY

114-116 West Second Street, Tulsa, Oklahoma

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OPENING THE FLOODGATES

The Texas Railroad Commission is to be commended for giving heed to the protests against its proposed order putting East Texas on a 51-barrel per well allowance regardless of total field production.

There should not be any difficulty in showing that 85 per cent of the producers are insistent on retention of the 325,000-barrel limit and opposed to any flat per well allowance which would simply start a new orgy of drilling.

Two arguments have been offered for removal of the field limit, both of them overcome by much weightier considerations.

One was that the metering system would practically eliminate 30,000 barrels daily illegally produced, making room for about 600 more wells. The other was that greater demand in the main motoring season called for more oil.

Instead of providing for 30,000 barrels more to take the place of the oil illegally produced the flat per well order would mean, according to the estimates on which it was based, 700 more wells by August 1 and nearly 40,000 barrels more production, and nearly 1,500 more wells by September 1 and 75,000 barrels more production.

As to the supposed increase in demand there is nothing to indicate anything of the kind in the reports on current consumption, rather the opposite, a considerable decrease.

For the first time in history the industry is this year facing a decline in demand for gasoline which not even the most optimistic think can be offset by any peak of summer demand.

There is thus certainly not any basis whatever for assuming there will be an increase in demand for crude requiring any larger production from East Texas or anywhere else.

The plea that further cuts in allowable per well, in order to keep within the 325,000-barrel limit with the new wells constantly being added, may reach a point where producers may be bankrupted, ignores an important point.

If the field is permitted to produce more oil than the demand the market will collapse and they will be even worse off.

The argument for larger production falls down whichever way it is looked at. There is no prospect for greater demand, and larger production, instead of saving the producer from bankruptcy, is more likely to throw him into it by breaking the market like it did before.

This money phase has been put first because it is plainly the main purpose behind the demand for removal of the field limit and for the substitution of a flat per well basis.

It ought to be plain that even from a money standpoint the new rule will be of no advantage to the producers but, on the contrary, disastrous.

There is no way by which it can be figured that the producer can be better off selling more oil for less money than he would be selling less oil for more money.

That is all there is to this situation. There is just so much demand and if the producer offers more than is needed he will have to take less for it.

The example of California should be taken. There a number of producers had exactly the same idea as those East Texans who are asking for removal of the field limit. They insisted on producing all they desired.

Resulting demoralization in the markets failed to depress them. They thought they were smarter than the others but in the end found they were not ahead.

So, when the time came that they were told to take their choice between curtailment and better prices and overproduction and bottomless markets they made their decision.

If East Texas producers want to better their position they can do it by holding down their production to demand and supporting the market rather than by making better prices impossible by overproduction.

So much for the producers' standpoint. How about the principle of conservation which is supposed to be the basis for the regulation by the Railroad Commission?

Anyone can see that the removal of the field limit and the substitution of a flat allowable per well must immediately lead to a great increase in drilling and great underground and aboveground waste, the very thing the conservation regulations are supposed to avoid.

It will hasten the hazard of water encroachment and decrease the efficiency in recovery.

It will aggravate the difficulty of securing connections, already a serious dilemma, which is clearly stated by the protest from the successful bidders for the Sabine River streambed rights:

"Under leases to us by the board of mineral development it is estimated the State will receive $5,000,000 in royalty from the Sabine River bed. In order to run this oil we will necessarily have to have many connections. If the proposed order be made effective 50-cent oil will be imminent and we will not be able to secure connections."

There is a concrete case where overproduction under the proposed order would be disastrous to the producer and a cash loss to the State.

The theory that the order for a flat per well basis without a field limit might be ordered for a period of 60 days as an experiment will not hold water.

There is no need for such an experiment since the outcome can be so clearly foreseen as to leave no doubt about its effects.

It is based on a wholly illusionary idea for which there is no reason in fact, that there will be an increased demand for crude during the gasoline consuming season.

President Amos L. Beaty of the American Petroleum Institute has just found it necessary to remind refiners again that they must not run off with the idea that withdrawals from stocks will justify them in increasing their runs.

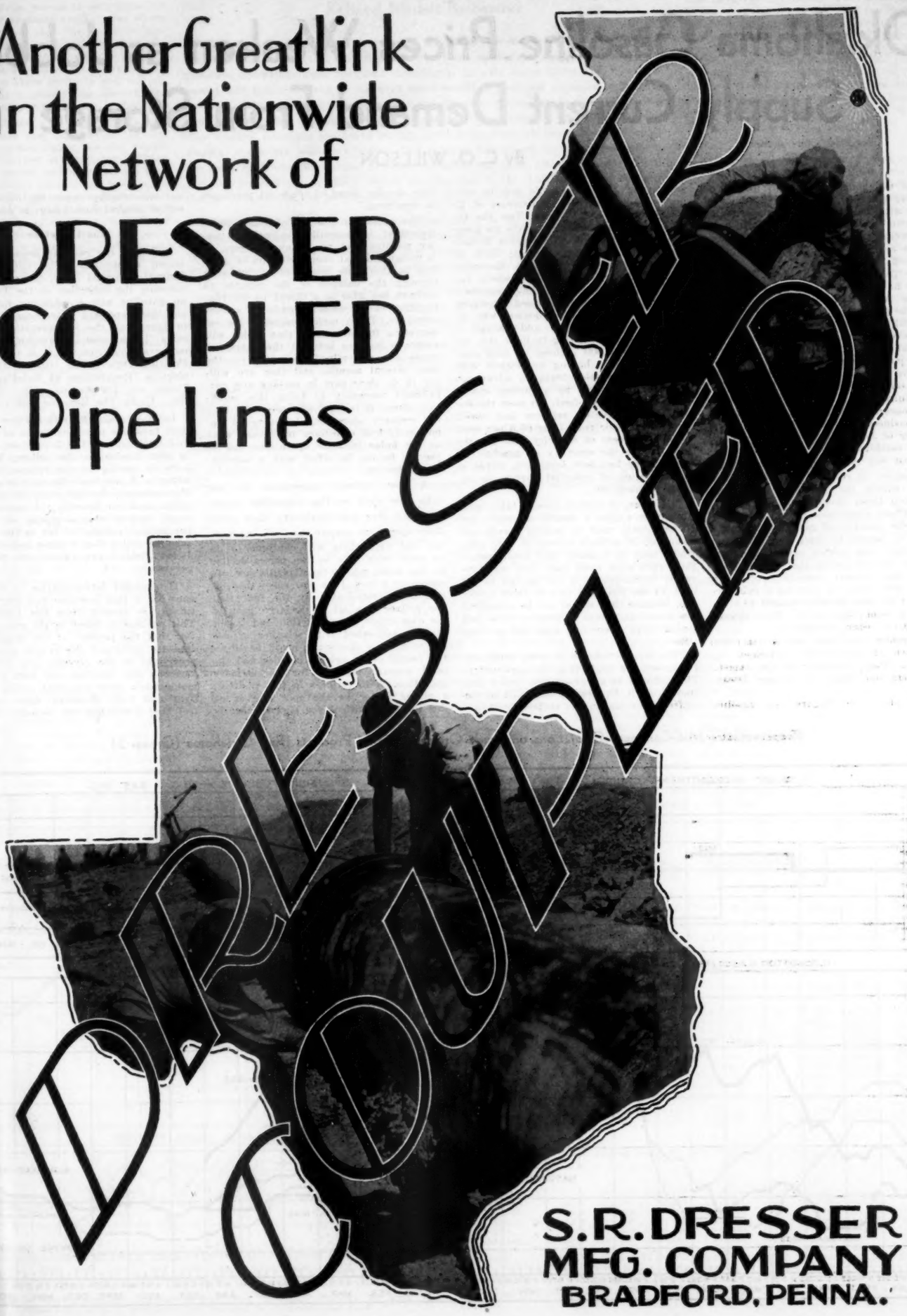
The refiners entered the season with more gasoline than could be conceivably required even had there been no decline in consumption. Their danger is exactly the same as the producer's, overproduction breaking their market.

A renewed drilling orgy in East Texas under the proposed order would flood the market with distress oil and distress gasoline.

We have been hearing a lot about state regulation and interstate compacts but, judging by this East Texas situation, we have a long distance yet to go.

It illustrates anew the fundamental weakness which deprives the industry of control of its production, the theory and practices which made it a "game" instead of a business. It is another argument for the new conception of pool development—unitized control.

Another Great Link in the Nationwide Network of DRESSER COUPLED Pipe Lines



S. R. DRESSER MFG. COMPANY
BRADFORD, PENNA.

Oklahoma Gasoline Prices Weaken as Jobbers Supply Current Demand From Storage

By C. O. WILLSON

The Oklahoma (Group 3) prices on refinery gasolines sagged during the past week with weakness more apparent the first two days of this week. Natural gasolines were holding better than the refinery grades although trading was dull in all products used as motor fuels.

The price decline reflects a condition which has been duplicated several times in the Mid-Continent refinery markets over the past two years. The lower priced material is coming from a few refineries, the owners of which did not prepare for the slump in buying which followed the heavy purchases previous to June 21, the effective date of the new Federal excise taxes on gasoline and lubricating oils. Unfortunately these few refiners are the only concerns who are actively soliciting new business for delivery over the remainder of June and they are to a large extent establishing the going spot market from day to day.

A number of refiners shut down their plants within the past few days and will keep them closed until July 1 or later. These companies accurately determined the quantity of gasoline and lubricating oil needed by their own distributing outlets and jobber connections and came to the conclusion that if they continued the normal operation of their plants they would be running a substantial part of their gasoline output to storage at a time when every effort should be made to reduce inventories.

The entire situation was summarized last week in an official statement by Amos L. Beaty, president of the American Petroleum Institute. Judge Beaty said:

"The Institute's figures on gasoline stocks for June 18 should not be misunderstood. They show a decrease of 2,658,000 bbls. for the week. Now the Institute does not receive reports on gasoline in station tanks. Its figures include gasoline at refineries, in pipe lines, at bulk terminals, and in transit. Recently, because of provisions in the Federal tax law, abnormal movements have occurred. The act as originally passed exempted gasoline in the hands of dealers who do not refine or produce, and though a measure is now pending to limit this exemption to 40,000 gallons in each case there was large buying by dealers who thought they would obtain an advantage of 1 cent a gallon by acquiring stocks prior to the twenty-first. To meet the demand thus created refiners last week stepped up their runs from 63.6 per cent to 65.7 per cent of capacity. The net result is that the quantity of gasoline in the country has been increased. There is no indication of material change in actual consumption.

"Refiners, of course, should take heed. They may expect a dearth of orders until the stocks now in dealers' hands are absorbed. If refiners intend to keep anywhere near in balance, they must reduce their runs even more than they were recently increased. It is not enough to get back to the figure of two or three weeks ago, because that would not be offsetting the recent increases. Moreover, runs and stocks have been too high for a long time.

"Too much crude oil is being produced. Producers are neglecting an opportunity. They should bring production down and hold it down. Otherwise, they will be the sufferers, or among the sufferers. A further slowing down of crude oil purchases is imminent."

The situation outlined in the above statement is generally realized by major refining and producing interests. It is recognized that overproduction of gasoline at this time means not only losses through the balance of the summer to refiners but also is a threat to the continuance of the present crude oil market structure. These major interests are endeavoring to work out a plan which will assure a balance between the supply of crude oil and refined products over the next several months and they are willing to do their part in making any curtailment necessary to bring this condition about. It is especially necessary that the refinery operations be curtailed immediately and continued until such time as the bulge in June operations due to pre-tax buying be offset with a substantial reduction.

A few refinery operators do not take this view of the immediate situation and they are continuing their early June operations despite the declining market and apparently will continue to do so until such time as the prices decline to the point where their plants are operated at a loss. In a few cases this situation is complicated by the fact that the refiner has all or a large part of his own crude oil production and is not directly concerned with whether or not his refinery is showing a profit based on the posted crude price schedules and the total amount received for his refinery operation. With refiners in this position, a major factor in the spot market at this time, the outlook for improvement is not encouraging unless the obvious remedy of general curtailment is adopted.

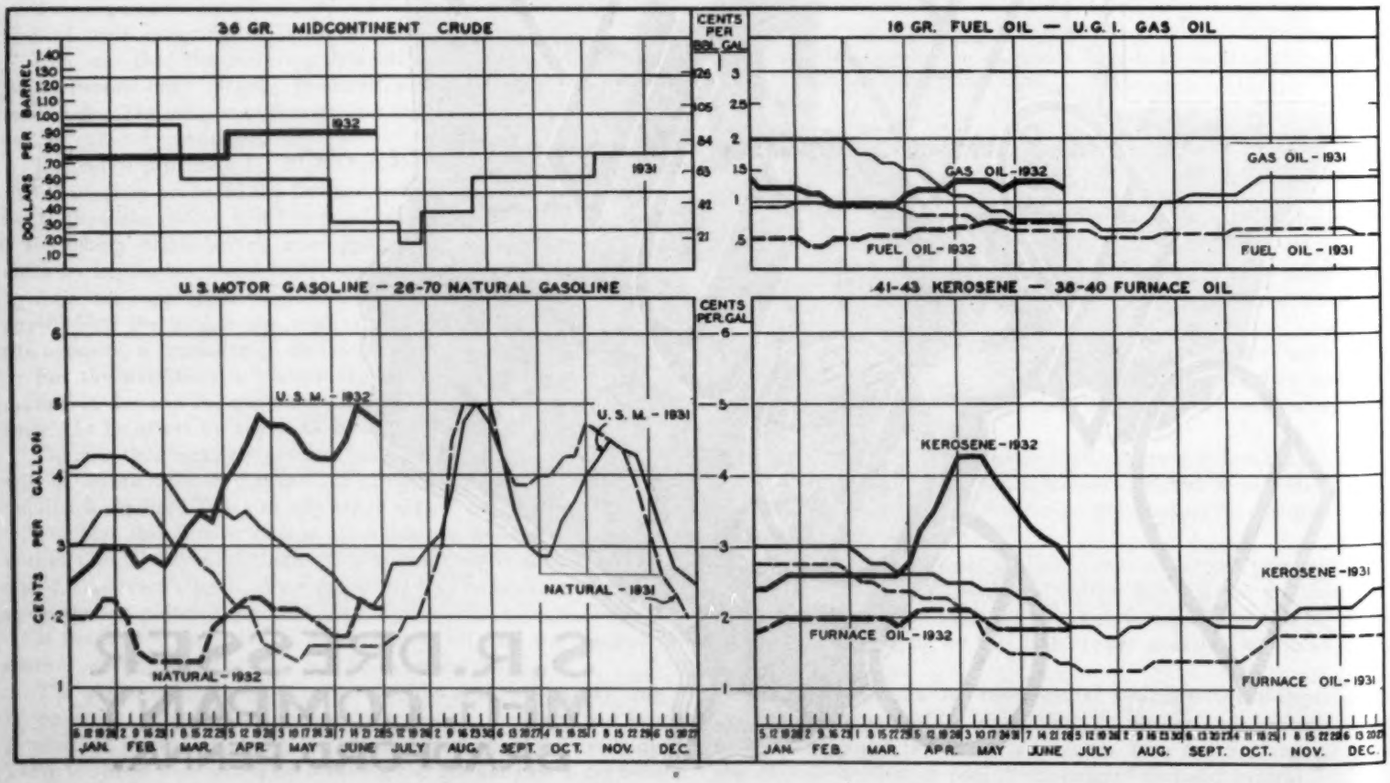
Tax Collection

Although the revenue department has issued regulations (The Oil and Gas Journal, June 23 issue, pages 8 and 9) covering the collection of the 1-cent tax on gasoline and 4 cents on lubricating oils there are still differences of opinion in regard to the interpretations of the rules. These rules in pamphlet form are now available from the U. S. Government Printing Office. The title of the pamphlet is "Regulations 44 Relating to the Taxes on Lubricating Oils, Gasoline, Etc., Under the Revenue Act of 1932."

In most cases the refiners are quoting their tank car prices exclusive of the tax and then adding the 1 cent or 4 cents in the invoice to the sellers. This results in saving to the refiner in cases where a 1 per cent discount is allowed. For instance, the difference on an 8,000-gallon tank car between a 1 per cent discount figured on a net price of 5 cents per gallon exclusive of tax in the case of gasoline and a 6-cent price including the 1-cent Federal tax amounts to 80 cents per car.

The general interpretation of the revenue bill is that kerosene and tractor distillate are exempt from the 1-cent tax. This position is based on the general ruling that the product is not taxable unless its principal use comes under the provisions of the revenue act. Although kerosene and distillate are both used as motor fuels their principal utilization is light and fuel. However, some refiners feel that ultimately the revenue depar-

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)


36 GR. MIDCONTINENT CRUDE
DOLLARS PER BARREL
1932
1931
CENTS PER BBL. GAL.
16 GR. FUEL OIL — U.G.I. GAS OIL
GAS OIL - 1932
GAS OIL - 1931
FUEL OIL - 1932
FUEL OIL - 1931
U.S. MOTOR GASOLINE — 28-70 NATURAL GASOLINE
CENTS PER GALLON
U.S.M. - 1932
U.S.M. - 1931
NATURAL - 1931
NATURAL - 1932
41-43 KEROSENE — 38-40 FURNACE OIL
CENTS PER GAL.
KEROSENE - 1932
KEROSENE - 1931
FURNACE OIL - 1932
FURNACE OIL - 1931
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

ment will devise means to determine the uses of these products and in cases where it is determined that the kerosene and distillate is being used as motor fuel, the taxes will be collected from the refiners. In a few cases refiners are collecting the 1-cent tax on these products and will refund the buyer, should the Government decide definitely that no tax is due.

Many refiners are playing safe and when in doubt they are adding the tax. This is a market factor for the reason that some buyers are refusing to pay the tax on certain products and are buying from refiners who do not include the payment. All Oklahoma refiners questioned are adding the 4 cents to all their lubricating oils although it is believed that in the sale of certain oils to compounders, the oils eventually will be exempted and the tax collected from the compounder who will be classed as a producer.

Greases

Several Mid-Continent refiners who are manufacturers of the greases have advanced their price one-half cent per pound to take care of the tax on lubricating oils used in the manufacture of the greases. However, at least one manufacturer takes the position that the 4-cent tax on lubricating oils does not apply to the greases and is not increasing its refinery quotations.

This is another illustration of the differences in opinion which have developed in the absence of rulings from the revenue department. Those who have advanced their prices feel that the law clearly provides that all fluid oils used in the manufacture of the greases are subject to the tax. This means that if refiner sold oils used in making greases to a compounder the seller would be subject to the 4-cent tax on all the oil sold and thus the compounder in effect would be paying the tax. Similarly these refiners feel that they will be compelled to pay the tax on the oils used in the manufacture of the greases at their own plants. Some of the refiners are not mentioning the tax in their invoices on greases but have advanced their refinery price one-half cent on all sales.

At least two Mid-Continent refiners have advanced their quotations 5 per cent on soaps manufactured at their plants. The line of reasoning is the same as in the case of greases. They point out that while soap itself is not taxable the oils used in the manufacture of the greases probably is subject to the tax and they have advanced their prices accordingly. This situation is also complicated by the fact that material sold as soap might also be used in some cases as a lubricant.

Refined Market Barometer

The advance in California crude oil schedules was the most important development of the week having significance in refinery markets. Tank wagon and retail gasolines quotations were advanced immediately in west coast states and it was expected that before the end of the week there would be material advances in tank car prices at California refineries for export and domestic movement. In the Middle West and Mid-Continent, refinery gasoline prices showed a tendency to soften due to a slow demand following the heavy buying previous to June 21, the date on which the Federal excise tax became effective. The demand and prices for other products for the most part were unchanged although kerosene was slow and prices lower in the Mid-Continent. Fules including Diesel oils advanced in the Gulf Coast area following similar advances of the previous week along the Atlantic Seaboard.

Mid-Continent—Refinery gasoline prices lower in all areas with slow demand Natural gasolines unchanged. Kerosene quotations continue decline with slow demand for most grades of distillates. Fuels firm except North Louisiana where supply exceeds demand. Lubricants unchanged with large drop in shipments. Wax unchanged.

East Coast—Slow demand for gasoline following recent advance in quotations. Kerosene weak. Better demand for lubricants. Wax prices firmer. Bunker and Diesel fuels firm. Export market inactive on new inquiries.

Chicago—Refinery gasoline prices lower as buying declines. Kerosene dull and quotations lower. More fuel oil and distillates offered.

Gulf Coast—Refiners advance quotations on all grades of fuels. Gasoline market slow. Little spot demand for lubricants.

Pennsylvania—Refiners advance prices on several grades of bright stock. Demand for gasoline and kerosene slow. Wax unchanged.

California—Advance in California crude oil prices to result in higher quotations on gasoline and fuel oil at refineries. New quotations will be announced later in week.

Gasoline and Naphtha

The low octane U. S. Motor gasoline, exclusive of tax, was selling to the trade on Tuesday at a low of 4¾ cents, a decline of one-fourth cent from the recent high. Resale material was available at 4⅝ cents for delivery over the balance of June.

Scattered quotations for delivery over July indicated additional price reductions. Those of a panicky frame of mind were anxious to secure orders for part of their July output and buyers were being offered concessions under the going spot market. Jobbers are as undecided about the future as are these few refiners making the quotations and little future business is being placed regardless of the quotations offered. The truth of the matter is that most of the larger jobbers with a high credit rating, have gasoline in storage to cover their early July requirements purchased last month at prices ranging from 3¾ to 4½ cents exclusive of taxes.

The higher gravity gasolines are also lower in quotations although spot sales are rare at any price. Naphtha prices are lower with a better demand than in the case of the regular refinery grades. In regard to blending naphthas some refiners are adding the 1-cent tax and others are not. The regulations previously mentioned would indicate that in cases where the naphthas are sold to jobbers for blending purposes, the refiner should not add the tax. The buyer must furnish the seller with a certificate showing that he expects to blend the product in the production of finished gasoline. In this case, the jobber establishes himself as a producer and pays the tax direct. The same rule applies to natural gasoline used for blending, the blender becoming a producer in the meaning of the revenue act and is responsible for the tax rather than the natural gasoline manufacturer. This position is just the opposite from that of the blender of lubricating oils, the revenue regulations expressly stating that a blender of lubricants cannot be classed as a producer.

Kerosene and Distillates

Prices on kerosene are one-fourth cent lower than last week and most grades of distillates are also off one-eighth cent. Some refiners have accumulated excess kerosene in the Mid-Continent and appear anxious to secure additional spot business and have lowered their prices accordingly. The lowering of distillates is reflection of the kerosene situation for only a few refiners have any furnace oil material to offer and there are many inquiries from jobbers anxious to secure contracts for next fall and winter.

The 41-43 water white kerosene is quoted to the trade in Oklahoma at a low of 2¾ cents with cheaper material offered for July delivery. The high gravity straw distillates were sold as low as 1¾ cents with a price range up to 2⅛ cents for the prime white material.

Fuels and Gas Oils

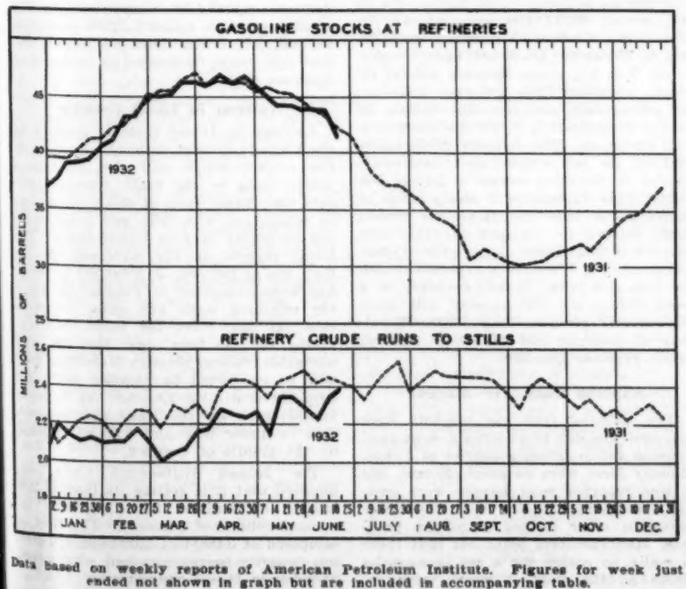
Heavy fuels and gas oil in Oklahoma are steady with no important changes in prices except that a small quantity of U.G.I. gas oil of high cold test was sold during the week at 1¼ cents or one-eighth cent under the previous low. Offerings are small, due in part to the curtailment of crude runs on the part of a number of refiners who are drawing on storage to cover their contract requirements. This condition no doubt will continue if refiners curtail their refinery operations to prevent a surplus of gasoline.

Natural Gasolines

The demand for natural gasolines has held up better than in the case of refinery gasoline and prices are unchanged from a week ago. The demand was slower on Monday and Tuesday and additional buying will be needed early in July if a price slump is to be prevented. Manufacturers are pointing to the fact that jobbers at present prices can afford to blend the regular grades with the refinery gasoline they now have in storage and this may aid the July movement.

Prices on lubricants and wax in Oklahoma are unchanged with spot and contract demand at the low point of the past year.

American Petroleum Institute Weekly Refinery Statistics



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table.

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Gasoline stocks. (4) Gas oil and fuel oil stocks All figures in 42-gallon barrels.

Week Ending June 25, 1932 Compared to Week Ago

	June 25, 1932				June 18, 1932			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	498,000	5,883,000	7,199,000	100.0	490,100	6,354,000	6,998,000
Appalachian	91.8	101,300	1,489,000	1,075,000	91.8	98,300	1,536,000	1,053,000
Ind., Ill., Ky. ..	98.9	290,800	5,298,000	4,139,000	98.9	297,600	5,655,000	4,065,000
Okla., Kans., Mo.	89.6	217,600	3,101,000	3,408,000	89.6	236,300	3,388,000	3,384,000
Texas	91.3	527,200	6,687,000	9,979,000	91.3	611,900	7,118,000	10,164,000
La. and Ark.	89.3	160,500	1,421,000	5,149,000	89.9	176,600	1,805,000	5,031,000
Rocky Mtn.	89.4	35,300	1,818,000	683,000	89.4	32,800	1,856,000	679,000
California	96.7	481,300	13,116,000	98,232,000	86.7	462,300	13,550,000	98,024,000
Total U. S.	95.1	2,312,000	38,913,000	129,864,000	95.1	2,405,900	41,262,000	129,398,000
Tex. Gulf	99.8	420,600	5,375,000	7,425,000	99.8	489,900	5,741,000	7,240,000
La. Gulf	100.0	109,800	1,322,000	4,375,000	100.0	122,900	1,696,000	4,375,000

Week Ending June 25, 1932 Compared to Year Ago

	June 25, 1932				June 26, 1931			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	498,000	5,883,000	7,199,000	100.0	502,100	7,655,000	9,228,000
Appalachian	91.8	101,300	1,489,000	1,075,000	91.8	89,900	1,521,000	1,219,000
Ind., Ill., Ky. ..	98.9	290,800	5,298,000	4,139,000	96.6	324,600	6,276,000	3,693,000
Okla., Kans., Mo.	89.6	217,600	3,101,000	3,408,000	89.6	264,700	3,486,000	4,581,000
Texas	91.3	527,200	6,687,000	9,979,000	91.3	534,400	7,862,000	10,202,000
La. and Ark.	89.3	160,500	1,421,000	5,149,000	98.9	181,400	1,834,000	2,439,000
Rocky Mtn.	89.4	35,300	1,818,000	683,000	89.3	40,600	1,878,000	860,000
California	96.7	481,300	13,116,000	98,232,000	96.5	476,400	11,470,000	98,019,000
Total U. S.	95.1	2,312,000	38,913,000	129,864,000	94.7	2,434,100	41,982,000	130,261,000
Tex. Gulf	99.8	420,600	5,375,000	7,425,000	99.8	395,600	6,637,000	7,225,000
La. Gulf	100.0	109,800	1,322,000	4,375,000	100.0	121,900	1,704,000	1,522,000

Chicago Marketers Considering Use of Placards Asking "Shall We Call It Taxoline?"

By ROBERT C. CONINE
Chicago Bureau, The Oil and Gas Journal, 6 North Michigan Ave.

CHICAGO, June 27.—The gasoline tank car markets in the Chicago district appeared weaker at the beginning of the week in spite of favorable reports from the refining centers.

Executives of major oil companies in the territory seem favorably impressed with the plan of posting large placards at their service stations displaying the legend: "Shall we call it Taxoline?" Explanatory data follow pointing out the numerous taxes levied on the petroleum industry. Some of the taxes the public never hears about may be shown.

Chicago's levies on the gasoline marketer are comparatively light when other points in the territory are considered. Here the gasoline dispenser pays only $100 for each curb pump; $2 each for all pumps in inspection fees; the Chicago license bureau takes $50 per 1,000 gallons capacity for gasoline storage tanks, and the fire prevention bureau takes $10 for the first 500 gallons capacity storage and 25 cents for each additional 100 gallons capacity. Then there are the other taxes paid by ordinary business.

The fire prevention bureau has only 35 inspectors, but it is reported that the bureau is looking into the matter of tank cars of gasoline and other products being held in tank cars at points within their jurisdiction. According to these reports gasoline was taken from refineries to practically "any destination" to lower the stocks held at the manufacturing plants. One district refiner reports that his sales during the recent buying splurge reduced the number of tank cars of gasoline at his refinery from 750 cars to 7 cars.

Two cars here and five cars there of various types of motor fuels, including 8.5-pound, 98 initial and 320 endpoint natural gasoline of 65 octane number, are offered to distributors as "ahead of tax" material at prices below the more representative movement. The price for the 320 endpoint material figures at 4⅛ cents, Group 3.

Discrimination Cited by Majors

Major oil companies who do not operate sales organizations as separate entities point out that for several weeks they will be meeting competition under a serious handicap. A check of the cut-price service stations in Chicago shows that prices have been advanced 1 cent uniformly in the gasoline retail markets making the new postings 13 cents for the low grade, 15 cents for the intermediate grade, and 18 cents for the premium grade. Several "premium grades" are selling at 16 and 17 cents. The majors are selling at 13.5 to 13.6 cents, third grade; 17.5 to 17.6 cents, regular grade, and 20.5 to 20.6 cents, premium grade. Commenting on the retail situation in the district and throughout the territory, an executive of one of the larger integrated companies, said:

"For several weeks ahead we are going to be gypped. We will be turning over to the Government the proceeds of our retail sales. The 1-cent Federal tax on gasoline and lubricating oils (quart) are only a part of our new tax burden. Meanwhile, those marketers who have no refining connections as variously interpreted by their counsel, will be selling the huge stores of gasoline they bought anticipating the Federal tax. The 1 cent they advanced their retail postings will not go to the Government, thanks to the efforts of Senators Walsh and Norris, but will represent additional profits. The larger trackage station operators have storage capacity, and those whose tanks are limited to a week's supply can pick up distress material waiting for buyers at district points. It also appears that matters are not entirely clear in connection with blended motor fuels. In an earlier survey we found that only one gasoline in the Chicago district acted suspiciously like a kerosene blend, while several indicated a new outlet for petroleum spirits. Today our laboratory tells us that 450 and over endpoint materials are likely to become common. Marketers in the district will recall that a favorite form of state gasoline tax evasion was the organization of a chain of dummy dry cleaning plants. The naphthas bought by the plant owners were certainly not those favored for the supposed work. Now greater profits are in store for the tax evader and you can be certain that the gasoline tax evasion committees of the various states have nearly as much work ahead of them as they had at the outset of their campaign against state gasoline tax evasion. The legal discrimination against the major companies will terminate within the next few weeks, but the unscrupulous refiner and retail marketer will hold an advantage until the Government discovers them and mulcts them $1,000 for having robbed the Government of $80 per tank car of motor fuel."

Gasoline Demand Continues Upward

Without considering the tax anticipating buying on the part of motorists who appeared last week at the service stations with containers ranging from 5-gallon cans to steel drums, business at the service stations has picked up. Increased demand was evident in the heavier traffic throughout Chicago, and at the service stations the attendants report a much brisker business although there is an unusual number of 2 and 3-gallon fills. Car lines over the week-end holidays are practically unbroken out to the forest preserves, golf links, the Dunes and other recreation attractions. New automobiles are more numerous on the streets and motor surveys indicate a good increase in the number of new automobiles sold in May and the early part of June.

There is too much gallonage available in the district to expect the tank car markets to halt at a point above 4½ cents for the U. S. Motor grade, but a continuation of the current level of consumption will clear up most of the distress material, and by the end of the month there should be some jobber buying activity on a scale which will make price quotations more than nominal. While buyers for resale are reported to be picking up material as low as 4¼ cents, Group 3, the trade is offered from 4½ to 4¾ cents from the majority of sources. On the small business now going it is probable that 4⅝ cents represents most of the volume.

Narrow Octane Price Range

A check of price quotations made by Texas, Oklahoma, Kansas, Arkansas and Illinois refiners reveals a narrowing in the price spreads between the different octane grades. The larger refiners say that they are maintaining the three-eighths of a cent spread between the low octane grade and the middle octane grade, with an additional quarter of a cent for the high octane number gasoline. However there are several refiners who offer freely the middle octane material on the price basis of the low antiknock. One refiner offers a 60-62 400 endpoint gasoline of 60 octane number at 4¾ cents, or the high of the U. S. Motor low octane. Another refiner also offers a 60-62, of lower endpoint and 70 octane number at 5⅛ cents for resale. The antiknock gasolines are suffering from competition of high octane natural gasoline blends. In sympathy with the declining gasoline markets the blending naphtha markets moved down a quarter of a cent, and natural gasolines failed to follow up a rally made two weeks ago. The blending naphtha, 50-52 gravity, 437 to 450 endpoint, is offered at 4½ to 4¾ cents. Scattered sales were reported slightly lower. The 26-pound natural is offered at 2¼ cents; the 22-pound material at 2¼ cents, and a 15-pound natural at 3⅛ cents.

Gasoline Tank Car Markets

The gasoline tank car markets show a decline of a quarter of a cent from last week's postings. It is probable that a general movement of refiners to shut down their plants or curtail their crude runs drastically represents the only measure which will prevent a return to prices which will mean heavy losses to refiners. Whatever happens the marketers (not connected with refinery branches) will not suffer. In fact, most of the marketers who did not start on a shoestring and who watched their credit accounts closely, have said in serious conversation that the oil industry has been particularly favored in the business depression in that its branches have not suffered as much as other commerce and manufacturing. Whatever the refiners say about this view, it is up to the refiners to take action which spells the only means by which the refining end can stay or get out of the red. Crude oil production affairs are apparently in strong hands and not in danger, according to observers here.

Gasoline tank car prices quoted Monday are as follows: U. S. Motor, 4½ to 4¾ cents; 60-62 400 endpoint, 4⅝ to 4⅞ cents; 64-66 375 endpoint gasoline, 4⅞ to 5⅛ cents; 68-70 360 endpoint gasoline, 5 to 5¼ cents. Because several refiners consider their aviation gasolines as advertising mediums, the prices on contract material is below the open market quotations. The fighting grade material of no set octane specifications is quoted on the open market at 5⅜ to 5⅝ cents. This represents a sharp drop in prices as the time approaches for several large buyers to contract for the next quarter or remainder of the year. Transcontinental & Western is expected to ask for bids this week. It will probably be a week before the Government will place its business of more than 5,000,000 gallons of domestic and 87 octane fighting grade aviation gasoline.

Naphtha Tank Car Markets

The naphtha tank car markets were expected Tuesday to undergo a downward revision not to exceed a quarter of a cent. Monday there were no price changes, but it was reported most buyers were seeking concessions in line with the lower prices in other refined petroleum products. Manufacturers point out that there is really no reason for a cut in naphtha prices as the field is much more restricted than the gasoline markets and no new demand can be created by merely cutting prices. It is reported that one of the larger producers of special naphthas is making progress in the work of producing naphthas which more closely meet the requirements of benzol and toluol users. This development really opens vast new markets. It is felt that naphtha sellers will shave down their prices with little hesitancy. Nominal quotations are: Cleaners, 6½ to 6¾ cents; lacquer diluent, heavy, 8½ to 8¾ cents; lacquer diluent, light, 9 to 9¼ cents; rubber solvent, 6¼ to 6½ cents; Stoddard, 5½ to 6 cents; petroleum thinner, 5¼ to 5½ cents; V.M.&P. naphtha, 6 to 6¼ cents; petroleum spirits, 4⅛ to 5¼ cents. At certain differential points lower quotations are being made. The statistical position of the naphthas is apparently good as indicated above in the case of the manufacturer who closed down, sending his customers to other refiners.

Kerosene Tank Car Markets

Although there has been no stocking up in kerosene, these markets are duller than they have been at any previous time this year. The 41-43 water white kerosene is quoted freely this week at prices which represent a reduction of three-eighths of a cent from last week's prices. The 42-44 water white kerosene was less in evidence and was quoted from Oklahoma and Kansas sources at a quarter of a cent under last week's prices. Monday's prices were 2⅞ to 3 cents for the 41-43 material, and 3 to 3¼ cents for the 42-44 kerosene.

Distillates and Fuel Oils

Recent increases in crude runs to stills were reflected in the softer appearance of the gas oil and distillate tank car markets. One refiner says that his price on 32-36 zero light straw, with 75 cars available for shipment over next month, is 1⅝ cents. This refiner also offers 20 cars of 32-36 "amber" material of under 50 cold test at 1¼ cents, Group 3. The ruling distillate and gas oil markets were slightly lower Monday as follows: 38-40 light straw, 1⅞ to 2 cents, down an eighth; 32-36 straw, 1⅝ to 1¾ cents, down an eighth; 38-40 straw, 1¾ to 1⅞ cents, down an eighth; 32-36 industrial gas oil, 1¼ cents, down an eighth. The fuel oils were unchanged in price with business dull.

Interest in Diesel Growing

Interest in Diesel fuels is growing in the Chicago district as work advances on the project which will give Chicago a water route to the Gulf. Reports indicate that many users of steam equipment in connection with lake and canal work are switching over to Diesel power. The latest reports on the waterway to the Gulf are as follows: A $500,000 terminal has been completed at Peoria. At Joliet the retaining walls are under construction. At Marseilles the locks were operated for the first time May 22, and navigable channel through Marseilles Pool will be completed by October when the dam there will be finished. At Dresden Island work on the locks and concrete dam is under way and will be finished by the middle of October.

The Inland Waterways Corp. announced that it is getting its fleet of 250 barges in readiness for a "greatly increased volume of business." The fleet is composed of 3,000-ton, 2,000-ton and 500-ton capacity barges equipped with 2,000-horsepower Diesel engines.

Increased Demand, With New Taxes, Advances Gasoline Prices in the Eastern Markets

By A. E. MOCKLER

New York Bureau, The Oil and Gas Journal, Rooms 1919-21, No. 154 Nassau Street

NEW YORK, June 27. — East Coast refined products have gone through another week of advancing prices, and while tank car movement continues heavy on old contracts, with new business relatively light, the market undertone remains definitely strong throughout the list. The imposition of the import and excise taxes early in the week, coupled with the seasonal upswing in gasoline demand, developed a decidedly strong market for motor fuels and all of the major sellers in the Atlantic Seaboard area advanced their tank car prices. Bunker "C" fuel oil was advanced 10 cents per barrel and Diesel oil was marked up 15 cents, these advances being made effective at domestic Gulf Coast ports also.

Refinery Gasoline

With Standard Oil Co. of New Jersey taking the initiative early in the week, all of the principal sellers in eastern seaboard markets again have advanced their posted prices in the tank car market this week, and the market is strong at the higher levels, although volume has fallen off a little due to the fact that many jobbers filled their storage prior to June 21 in anticipation of getting around the Federal tax of 1 cent per gallon.

Current posted prices at important Atlantic Seaboard markets are as follows: U. S. Motor gasoline, below 65 octane number, New York, 7½ to 8¼ cents per gallon, Boston 7½ cents per gallon, Baltimore 7½ to 7¾ cents per gallon, Charleston 7¾ to 8¼ cents per gallon, all in tank car lots, f.o.b. terminals. It is expected that the inside sellers will advance their quotation to an inside price of 8 cents per gallon within the next few days. For motor gasoline of 65 octane number and higher, prices range as follows: New York, 8 to 8¾ cents per gallon; Boston, 8¼ cents per gallon; Baltimore, 8 to 8¾ cents per gallon; Charleston, 8¼ to 8¾ cents per gallon.

Some of the leading sellers are not quoting flat prices for tank car shipments, f.o.b. terminals, but quote instead a delivered price based on fixed differentials under posted service station prices. The companies so quoting, and their price basis, follow:

Standard Oil Co. of New York, Inc.—Motor fuel, 65 octane number and above, a delivered price of not more than 5 cents per gallon under Socony posted service station price at the point and date of delivery, which shall in no event be under 7½ cents per gallon, f.o.b. New York harbor area, exclusive of all taxes.

Colonial-Beacon Oil Co.—A delivered price based on the same terms and with the same minimum as Socony.

Shell Eastern Petroleum Products, Inc. (for gasoline under 65 octane number)—Six cents per gallon below Shell's posted service station price, not including tax, at point of destination, with a minimum seaboard terminal price of 8¼ cents per gallon.

Tank Wagon Gasoline

No further general price revisions developed in tank wagon or service station markets, following the upward movement at the close of the previous week, but all retail quotations were 1 cent higher, as of June 21, when the Federal excise tax became effective.

A steady demand for motor fuel was reported throughout the entire area during the week, and the higher prices resulting from the 1-cent advance in refinery quotations and the additional 1-cent markup when the Federal tax became effective, apparently failed to affect demand to any material extent.

Tank wagon and service station markets continued in strong position, and further advances are looked for The New York City market is out of line with the remainder of the territory, to the extent of 3 cents per gallon, and the latest increase of one-half cent per gallon in refinery prices has not yet been reflected in the retail price schedule.

There has been a little increase in third-grade marketing in some parts of the East, and it is possible that the cheaper grades will be featured more extensively in some areas where the higher prices for the regular grades may be found to adversely affect gallonage. Marketers, however, are not disposed to push third grades unduly, as there is very little profit margin in competitive grades.

Kerosene

Posted prices for kerosene have not yet reflected the strength evident in other branches of the market, but sentiment has improved somewhat, and price cutting is not the factor it was a few weeks ago. Refiners are posting 41-43 water white at 5½ to 6 cents per gallon, in tank car lots at refineries, and the bulk of current business, which is somewhat better, is going through at these levels.

Tank wagon kerosene sales have picked up somewhat during the past week, and refiners are now more optimistic regarding the outlook for summer gallonage in this territory. Prices remain unchanged.

Lubs

A better undertone is again evident in this week's market, prices being higher on several grades. Spot 600 Warren E is quoted a half cent higher at 24½ to 25 cents per gallon, with Oil City E recording a corresponding increase at 23½ to 24 cents per gallon. Bright stocks are also higher, sellers quoting 1 cent per gallon over previous levels, at 33 to 34 cents for light and 31 to 32 cents per gallon for the dark.

Demand for lubs for prompt and nearby shipment fell off somewhat during the period, consumers in most instances having bought heavily prior to June 21 to anticipate the Federal tax of 4 cents per gallon.

Retail lub oil prices have been advanced 1 cent per quart by a number of marketers to give effect to the Federal tax, while some distributors have absorbed the tax themselves.

Wax

Spot demand for wax continued along routine lines during the week and refiners were showing firmer price views, although no advances developed.

Buyers, however, are still bearish in their price views, and are inclined to defer purchases until stocks are actually required, pointing to the heavy refinery stocks as indicative of an inherently weak market.

Export demand was rather limited, with inquiries confined mostly to fully refined grades.

Fuel Oil

Strong domestic crude markets and the imposition of the import tax on foreign fuel and crude oils brought about a firmer tone in the East Coast market last week. Effective June 21, Standard Oil Co. of New Jersey and other sellers advanced the market 10 cents per barrel to 85 cents, in bulk, f.o.b. harbor terminals, at all principal East Coast ports, and on the following day the same advance was made effective at the Gulf.

Refiners and importers expect possible further increases in bunker oil prices, in line with the steadily strengthening tendency of domestic oil markets.

Importers are continuing their operations on the understanding that bunker oil brought into this country for delivery to American registry ships plying in foreign trade and in the Pacific-Atlantic Coast trades, via the Panama Canal, are entitled to tax exemption on their oil, but oil brought into the country for delivery to ships flying foreign flags must pay the tax, no drawback being allowed.

East Coast refiners are looking for an advance in California fuel oil prices, which they consider necessary to consolidate the position of the market here and at Gulf ports.

Diesel Oil

Effective June 21, Diesel oil quotations at Atlantic Coast ports were advanced 15 cents per barrel to $1.65 and on the following day a 15-cent advance was put into effect at the Gulf, bringing that market up to $1.50 per barrel.

California Diesel oil is still posted at 70 to 85 cents per barrel, an unusually wide spread with East Coast markets at $1.65, but it is expected that Pacific Coast markets will show an early advance. A continuance of the present disparity between East Coast and California posted prices would make intercoastal movements quite profitable, considering the distressed rates at which tanker tonnage can now be chartered.

Gas Oil

More strength is evident in the gas oil market locally, and refiners in most instances are holding 28 gravity plus recycled oil steady at the posted level of 4 cents per gallon in tank car lots, f.o.b. terminals.

While contract deliveries are going out at 3½ cents a gallon, sellers in the spot market at 3¾ cents are not as numerous as during recent weeks, strength in bunker oil markets having affected gas oil as well.

Gulf Export Market

The only inquiry reported at the Gulf during the week was one for a cargo of 6,000 to 7,000 tons of stabilized casinghead gasoline for shipment to France. Sellers quoted 4½ cents per gallon on this business, but the inquiry was postponed.

No fixtures on either gasoline or kerosene were reported, and prices were nominally unchanged.

Rumanian sellers have revised prices on several products. F.o.b. Constanza quotations as of June 9 were as follows: Gasoline, 730 gravity, $16.89 per ton, off 12 cents; heavy gasoline, $12.27 per ton, unchanged; lamp oil, $6.27 per ton, up 7 cents; white spirit, first grade, $9.35 per ton, unchanged; second grade, $7.90 per ton, unchanged; gas oil, $5.77 per ton, up 18 cents; and fuel oil, $3.58 per ton, unchanged.

American, British, Dutch and Rumanian oil executives will meet in Paris on Wednesday of this week for a renewal of the conferences for stabilization in export markets. Rumanian interests have already indorsed the plan, in principle, and a satisfactory outcome of the meeting is anticipated. At last reports, representatives of the Soviet oil trust had decided not to participate in the Paris conferences.

Petroleum Exports

Routine trading was again reported in the local export market during the past week, and shipments were generally of small amount. Inquiries were along limited lines.

The following table shows exports of principal refined petroleum products from the port of New York for the past three weeks (all figures in gallons unless otherwise noted):

	Week ended		
	June 18	June 11	June 4
Gasoline	225,000	105,000	5,000
Naphtha	340,000	280,000	.....
Kerosene	22,000	28,000	16,000
Fuel and gas oil	45,000	265,000	.....
Lubricating oil	460,000	1,125,000	415,000
Petroleum, ref'd	75,000	180,000	30,000
	Pounds		
Petrolatum	12,000	8,000	12,000
Paraffin wax	975,000	750,000	1,275,000
Refined	360,000	55,000	220,000
Scale	.....	40,000	.....
Lub. grease	400,000	680,000	415,000

Imports

Contrary to expectations, imports of crude and refined petroleum at the principal United States ports for the week ended June 18, the last full week in which tax-free imports were possible, did not show a sharp gain, but were in fact under those for the previous several weeks. Imports totaled 2,151,000 bbls., a daily average of 307,286 bbls., as compared with 2,410,000 bbls., or 344,286 bbls. daily, during the previous week and a daily average of 314,393 bbls. for the four weeks ended June 18. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
Baltimore	421,000
Boston	61,000
New York	1,330,000
Philadelphia	112,000
Others	144,000
Total	2,078,000
Daily average	296,857
At Gulf Coast Ports—	
Port Arthur and Sabine district	73,000
Total	73,000
Daily average	10,429
At all United States Ports—	
Total	2,151,000
Daily average	307,286
Daily average four weeks	314,393

Distribution of total imports during the week ended June 18 was as follows:

Crude	1,130,000
Gasoline	329,000
Gas oil	24,000
Fuel oil	668,000

California Oil Receipts

There were no shipments of California crude or refined petroleum received at Atlantic or Gulf Coast ports during the week ended June 18.

Shipments were reported cleared from California during the week as follows:

For New York, 98,000 bbls. of gasoline on the Royal Arrow (Socony-Vacuum Corp.); 75,000 bbls. of gasoline on the Solana (Associated Oil Co.).

For Baltimore, 75,000 bbls. of gasoline on the R. J. Hanna (Standard Oil Co. of California).

For Bayonne, 75,000 bbls. of gasoline on the New Jersey (The Texas Company).

In as much as imported gasoline for distribution along the Atlantic Seaboard is to be replaced, partially at least, by California motor fuel, due to the 2½-cent per gallon import duty, an early increase in California motor fuel shipments to the East Coast is looked for.

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21.

Gasolines

	June 28		June 21	
OKLAHOMA (Group 3)—				
*U. S. Motor	.04¾	.05⅛	‡.04⅞	.05⅛
60-62 400	.05	.05⅛	.05⅛	.05⅜
64-66 390	.05⅛	.05¼	.05¼	.05½
64-66 375	.05¼	.05⅜	.05¼	.05½
68-70 350	.05⅜		.05⅜	.05⅝
NORTH TEXAS—				
*U. S. Motor	.04⅝	.04⅞	.04¾	.05
60-62 400	.04¾	.05	.05	.05⅛
64-66 390	.04⅞	.05	.05⅛	.05¼
64-66 375	.05	.05⅛	.05¼	.05⅜
64-66 360	.05⅛	.05¼	.05½	
†NORTH LOUISIANA—				
*U. S. Motor	.05¼	.05½	.05½	
60-62 400	.05⅜	.05½	.05⅝	
†ARKANSAS—				
*U. S. Motor	.05¼	.05½	.05½	
CHICAGO Based on Okla. (Group 3)—				
*U. S. Motor	.04¼	.04⅜	.04¾	.05
60-62 400	.04⅝	.04⅞	.04⅞	.05⅛
64-66 375	.04⅞	.05⅛	.05⅛	.05¼
Aviation fighting grade	.05⅜	.05⅝	.05⅞	.06⅛
68-70 360	.05	.05¼	.05¼	.05½

Octane Ratings—Above quotations cover price ranges on gasoline in which no octane rating is given. Week ending June 28, in the case of the U. S. Motor and 60-62 400 endpoint grades where an octane rating of 57-65, inclusive, is guaranteed, prices are three-eighths cent per gallon higher than quotations shown in above tables; where an octane rating of better than 65 is guaranteed, the prices are five-eighths cent higher. In the case of the remaining grades, gasolines of 65 octane rating or higher are quoted one-half cent higher than the quotations shown in above tables.

Unless otherwise provided by agreement of buyers and sellers, the Series 30 testing equipment of the Ethyl Gasoline Corp. is recognized as standard in determining octane ratings.

*Present distillation specifications on U. S. Motor gasoline are: 10 per cent evaporated, 167° F. maximum; 50 per cent, 284° F., maximum; 90 per cent, 392° F. maximum; residue not exceeding 2 per cent; maximum vapor pressure, 12 pounds. Additional specification on U. S. Motor gasoline available from bulletins of Bureau of Mines, Washington, D. C.

†For Arkansas, Louisiana and Mississippi delivery.

‡Incorrectly carried at .04⅞ cent in June 23 issue.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.06½	.06¾	.06½	.06¾
60-62 400	.06⅝	.06¾	.06⅝	.06¾
64-66 375	.06¾	.07	.06¾	.07
68-70 350	.06⅞	.07¼	.06⅞	.07¼

Octane Ratings—In the case of U. S. Motor and 60-62 400 endpoint grades, same price differentials based on octane ratings as shown in above tables for Oklahoma and other Mid-Continent areas.

CALIFORNIA (domestic movement only)—				
54-58 U. S. Motor	.06	.06½	.04¼	.04½
58-60 400	.06¼	.06¾	.04¾	.05¼
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.06½	.07¼	.06¾	
Boston	.06½		.07	
Baltimore, Md.	.06½	.06¾	.06¾	.07
Charleston, S. C.	.06¾	.07¼	.06¾	
U. S. Motor, 65 octane and above:				
New York (Bayonne)	.07	.07¼	.07	.07¼
Boston	.07¼		.07	.07½
Baltimore, Md.	.07	.07¼	.07	.07¼
Charleston, S. C.	.07¼	.07½	.07	.07¼
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.05½	.05¾	.05½	.05¾
U. S. Motor, below 65 octane number	.05¼	.05½	.05¼	.05½

Naphthas

	June 28		June 21	
OKLAHOMA (Group 3)—				
50-52 450 (blending)	.04½	.04¾	.04¾	.05
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.05⅞	.06¼	.05⅞	.06¼
ARKANSAS—				
48-50 450 (blending)	.05	.05¼	.05	.05¼
CHICAGO Based on Okla. (Group 3)—				
50-52 450 (blending)	.04½	.04¾	.04¾	.05
Cleaners' naphtha, 56-58 gr. 200 i.b.p.-320 e.p.	.06½	.06¾	.06½	.06¾
Lacquer diluent, 180 i.b.p.-250 e.p.	.08½	.08¾	.08½	.08¾
Lacquer diluent, 140 i.b.p.-200 e.p.	.09	.09¼	.09	.09¼
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.06¼	.06½	.06¼	.06½
Stoddard solvent, 300 i.b.p.-410 e.p. over 100° flash	.05½	.06	.05½	.06
Pet. thinner, 290, 300 i.b.p. 415 e.p., over 83° flash	.05¼	.05½	.05¼	.05½
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.06	.06¼	.06	.06½
Petroleum spirits	.04⅛	.05¼	.04⅛	.05¼

Natural Gasolines

	June 28		June 21	
OKLAHOMA (Group 3)—				
Grade 18-55	.02⅝		.02⅝	.02¾
Grade 26-70	.02¼		.02¼	.02¼
Grade 30-70	.02⅛		.02⅛	
NORTH TEXAS—				
Grade 18-55	.02⅝		.02⅝	
Grade 26-70	.02¼	.02¼	.02¼	
Grade 30-70	.02⅛		.02⅛	
NORTH LOUISIANA—				
Grade 26-70	.02½		.02⅝	
CALIFORNIA—				
75-78 375	.03¾	.04¼	.03¾	.04¼

Note—Grades 18-55, 26-70 and 30-70 are three of 24 grades adopted by the Natural Gasoline Association of America effective January 1. The grades are based on pounds vapor pressure and amount evaporated at 140° F. While not exactly the same specifications apply, Grade 18-55 corresponds to the former Grade A, Grade 26-70 to former Grade AA and Grade 30-70 to former Grade BB.

Kerosenes

(All kerosenes water white)

	June 28		June 21	
OKLAHOMA (Group 3)—				
41-43	.02¾	.03	.03	.03¼
42-44	.03	.03¼	.03¼	.03½
NORTH TEXAS—				
40-41	.02⅝	.03¾	.02⅞	.03
41-43	.02½	.02⅝	.03	
†NORTH LOUISIANA—				
41-43	.03½		.03¾	.03⅞
42-44	.03¾		.03⅞	.04
†ARKANSAS—				
41-43	.03½		.03¾	.03⅞
PENNSYLVANIA (inland refineries)—				
45	.04⅞	.05	.04⅞	.05
46	.05	.05⅛	.05	.05⅛
47	.05⅛	.05⅜	.05⅛	.05⅜
CHICAGO (Based on Group 3)—				
41-43	.02¾	.03	.03⅛	.03¼
42-44	.03	.03¼	.03¼	.03⅜
*CALIFORNIA—				
38-40 high burning test	.03¾	.04¼	.03¾	.04¼
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.06	.05½	.06
GULF COAST (domestic)—				
41-43 water white	.04¼	.04½	.04¼	.04½

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Tractor Fuels*

	June 28		June 21	
OKLAHOMA (Group 3)—				
39-40 prime white	.02¼	.02¼	.02¼	.02⅜
38-40 light straw	.01⅞	.02	.02	.02¼
NORTH TEXAS—				
38-40 light straw	.02	.02⅛	.02⅛	.02¼
CHICAGO (Based on Group 3)—				
38-40 light straw	.01⅞	.02	.02	.02⅛
PENNSYLVANIA (inland refineries)—				
41-43 prime white	.04	.04¼	.04	.04¼

*There are no standard specifications for tractor fuels. Grades commonly sold have flash under 175° F. (open cup) and under 575° F. endpoint and less than .2 per cent sulphur. Tractor fuels are available from all Mid-Continent refining groups at prices in line with the Oklahoma market taking into consideration differentials in freight rates.

Furnace Oils*

	June 28		June 21	
OKLAHOMA (Group 3)—				
32-36 straw	.01¾		.01¾	.01⅞
36-38 straw	.01¾	.01⅞	.01¾	.02
38-40 straw	.01¾	.02	.01⅞	.02
39-41 prime white	.02⅛	.02¼	.02¼	.02⅜
NORTH TEXAS—				
38-40 straw	.01¾	.02	.01⅞	.02
†NORTH LOUISIANA—				
36-40	.02¼	.02½	.02¼	.02½
†ARKANSAS—				
32-36	.02¼	.02½	.02¼	.02½
CHICAGO (Based on Group 3)—				
32-36 straw	.01¾	.01¾	.01¾	.01⅞
38-40 straw	.01¾	.01⅞	.01⅞	.02
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03¼	.03½	03¼	.03½
NEW YORK (Bayonne, N. J.)—				
32-36	.04	.04½	.04	.04½
36-40	.05	.05½	.05	.05½

*Above prices are for furnace oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

	June 28		June 21	
OKLAHOMA (Group 3)—				
32-36 (G.O.) cracking stock	.01⅜	.01½	.01⅜	.01½
U.G.I. (G.O.)	.01¼	.01⅜	.01⅜	.01½
32-36, zero to 15 (G.O.) high flash	.01⅜	.01½	.01½	.01⅝
28-30, zero to 10	.52½	.55	.52½	.55
26-30, zero to 10	.50		.50	
24-26	.42½	.45	.42½	.45
20-22	.40	.45	.40	.45
16-20	.35	.40	.35	.40
Below 16	.32½	.35	.32½	.35
NORTH TEXAS—				
32-36 (G.O.) industrial	.01¼	.01⅜	.01¼	.01⅜
22-26	.45	.50	.45	.50
Below 20	.35	.45	.35	.45
†NORTH LOUISIANA—				
32-36 (G.O.) zero	.02		.02	
14-16	.35	.40	.35	.40
†ARKANSAS—				
32-36 (G.O.) zero	.02		.02	
14-16	.35	.40	.35	.40
CHICAGO (Based on Group 3)—				
32-36 (G.O.) industrial	.01¼		.01⅜	
28-30 (zero)	.55	.60	.55	.60
22-26	.40	.45	.40	.45
18-22	.25	.30	.25	.30
Below 18	.22½	.27½	.22½	.27½
PENNSYLVANIA (inland refineries)—				
36-40	.03	.03¼	.03¼	.03½

Note—Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.70	.85	.65	.85
27 plus Diesel	.70	.85	.70	.85
15-19 Bunker (at tidewater)	.55	.75	.55	.75
15-19 Bunker (cargo lots)	.50	.65	.50	.65
15-19 Bunker (tank car)	.45	.65	.45	.65
GULF COAST—				
28-30 (G.O.)	.03	.03⅛	.03	.03⅛
28-30 Diesel	1.50		1.35	
Bunker C (bulk cargoes)	.55	.60	.50	.55
Bunker C (bunkers)	.70		.60	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.04		.04	
*28-30 Diesel	1.65		1.65	
†Bunker C	.85		.85	

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

	June 28		June 21	
Breeze (screenings)	3.50	3.75	3.50	3.75
Still runs	4.50	4.75	4.50	4.75
Lump and egg	5.00	5.50	5.00	5.50

*Refiners will absorb freight up to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

	June 28		June 21	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06¾
180-3	.07½	.07¾	.07½	.07¾
180-4	.07	.07¼	.07	.07¼
200-3	.08¼	.08½	.08¼	.08½
200-4	.08	.08¼	.08	.08¼
240-3	.09¾	.10	.09¾	.10
240-4	.09¼	.09½	.09	.09½
280-3	.11¼	.11½	.11¼	.11½
280-4	.10½	.10½	.10½	.10½
300-3.5	.11¾	.12	.11¾	.12
350-3.5	.12¼	.12½	.12¼	.12½
400-4	.12¾	.13	.12¾	.13
500-4.5	.13¼	.13½	.13¼	.13½
100-2 Paraffin Oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07¾	.08	.07¾	.08
200-4	.07½	.07¾	.07½	.07¾
240-3	.09¼	.09½	.09¼	.09½
240-4	.08¾	.09	.08¾	.09

280-3	.10¾	.11	.10¾	.11
280-4	.09¾	.10	.09¾	.10
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.15	.16	.15	.16
10 pour test	.14	.15	.14	.15
15 pour test	.13½	.14½	.13½	.14½
25 pour test	.12¾	.13¼	.12¾	.13¼
30 pour test	.12¾	.13	.12¾	.13
180 vis., No. 3, 25 pour test	.15¾	.16½	.15¾	.16½
200 vis., No. 3:				
Zero pour test	.22	.23½	.22	.23½
10 pour test	.21	.22	.21	.22
15 pour test	.19½	.20	.19½	.20
25 pour test	.18	.18½	.18	.18½
30 pour test	.17¾	.18	.17¾	.18
GULF COAST—				
Pale Oils:				
100-2-2½	.05		.05	
200-3	.06½		.06½	
300-3	.07		.07	
500-3½	.08	.08½	.08	.08½
750-3½	.09	.09½	.09	.09½
1,200-3½	.10½	.11	.10½	.11
2,000-4	.12	.12½	.12	.12½
Red Oils:				
200-5-6	.05	.05½	.05	.05½
300-5-6	.05½	.06	.05½	.06
500-5-6	.06¾	.07	.06¾	.07
1,200-5-6	.09½	.10	.09½	.10
2,000-6 plus	.11	.11½	.11	.11½
CALIFORNIA—				
Pale Oils:				
100-2½-3	.07¾	.08	.07¾	.08
200-2½-3	.07¾	.08	.07¾	.08
300-3-3½	.08¼	.08½	.08¼	.08½
350-3-4	.08¾	.09	.08¾	.09
400-3-4	.09¼	.09¾	.09¼	.09¾
450-3-4	.09¾	.10	.09¾	.10
550-3-4	.10¼	.11	.10¼	.11
Red Oils:				
200-4½-5	.07	.07¼	.07	.07¼
300-5-6	.07½	.07¾	.07½	.07¾
350-5-6	.08		.08	
400-5-6	.08¼		.08¼	
450-5-6	.08½		.08½	
500-5-6	.08½	.08¾	.08½	.08¾
600-5-6½	.09	.10	.09	.10
700-6½ plus	.10	.10½	.09	
750-6½	.10½	.11½	.09	.09½
900-6½ plus	.12½	.14	.13½	.14
NEW YORK (Bayonne, N. J.)—				
Paraffin Oil:				
25 pale	.10¼		.10¼	
28 pale	.07¼		.07¼	
280 red	.12½		.12½	
250 red	.11½		.11½	
225 red	.10		.10	
200 red	.09¼		.09¼	

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	June 28		June 21	
630 light green	.07¾	.08		
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.04	.04½	.04	.04½
Bright Stock:				
190-200 D	.23		.23	
150-160 D, 0-10	.22		.22	
150-160 D, 10-25	.21½		.21½	
150-160 D, 25-40	.21		.21	
150-160 E	.21		.21	
PENNSYLVANIA—				
600 S.R.	.14	.15	.14	.15
650 S.R.	.17	.17½	.16½	.17
600 Pennsylvania flash	.18	.18½	.17½	.18
600 D filtered	.22½	.23	.22½	.23
600 E filtered	.17	.17½	.17	.17½
Pennsylvania Grade bright stock:				
Bright Stock, No. 8 color, 145-50 vis.				
210-540-550 flash:				
10 pour test	.28	.30	.27½	.28½
15 pour test	.27	.27½	.25	.26
25 pour test	.26	.26½	.24	.24½
35 pour test	.26		.23½	.24

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	June 28		June 21	
124-126 white crude scale	.01⅝	.01¾	.01⅝	.01¾
PENNSYLVANIA—				
122-124	.02		.02	
124-126	.02	.02¼	.02	.02¼
NEW YORK (Bayonne, N. J.)—				
Refined Wax:				
120-122	.02½		.02½	
125-127	.03		.03	
130-132	.03⅜		.03⅜	
133-135	.04		.04	
135-137	.04⅛		.04⅛	
Petrolatum in barrels in carload lots:				
Dark green	.01¾		.01¾	
Amber	.02⅛		.02⅛	
Extra amber	.02⅝		.02⅝	
Cream	.04⅝		.04⅝	
Lily white	.05⅝		.05⅝	
Snow white	.06⅞		.06⅞	

Export Prices

GASOLINE

GULF COAST—	June 28		June 21	
U. S. Motor	.04½		.04½	
60-62 400	.04⅝		.04⅝	
61-63 390	.04¾		.04¾	
64-66 375	.05		.05	
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane num.	.05		.05	
U. S. Motor, 67 octane num.	.05¼		.05¼	
U. S. Motor, 69 octane num.	.05½		.05½	
58-62 400 endpoint gasoline	.04¼	.05	.04¼	.05

KEROSENE

GULF COAST—				
41-43 prime white	.04⅜		.04⅜	
41 water white	.04½		.04½	
LOS ANGELES, CALIF.—				
41-43 water white	.03¾	.04¾	.03¾	.04¾

LUBRICANTS

NEW YORK (Bayonne, N. J.)—				
600, steam refined cylinder stocks, in bbls.	.22	.22½	.22	.22½
650, steam refined	.24½	.25	.24½	.25
600, Pennsylvania flash	.25½	.26	.25½	.26
630, Pennsylvania flash	.30½	.31	.30½	.31
600, Warren E	.24½	.25	.24	.25
600, Oil City E	.23½	.24	.23	.24
Light 140-150 Bright Stocks	.33	.34	.32	.33
Dark 140-150 Bright Stocks	.31	.32	.30	.31

Crude Oil Prices

OKLAHOMA, KANSAS, NORTH AND EAST CENTRAL TEXAS

East Texas (Apr. 1, 1932)† ..... $ .98
East Texas (April 11, 1932)‡ ..... .98
Corsicana heavy* ..... .64
Other fields ..... See gravity table

†Posted by Magnolia Petroleum Co., Sinclair Refining Co., Panola Pipe Line Co., Tidal Refining Co. and The Texas Company. ‡Gulf Pipe Line Co. and Atlas Pipe Line Co. *Magnolia Petroleum Co.

EASTERN STATES

Joseph Seep Purchasing Agency
(Effective April 25, 1932)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field) (Mar. 14, 1932) $2.02
Pennsylvania Grade Oil in Southwest Pennsylvania Lines 1.75
Penna Grade Oil in Eureka Pipe Line Lines (West Virginia) (Feb. 26, 1932) 1.70
Penna Grade Oil in Buckeye Pipe Line Lines (Mar. 12, 1932) 1.55
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Apr. 26, 1932) 1.05
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931) ... .60

Pennzoil Co.
(Effective April 25, 1932)

Pennsylvania Grade Oil in National Transit Lines:
Group A $1.97
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B 1.96
Includes Titusville district.
Group C 1.95
Includes Turkey and Tidiout districts.
Group D 1.94
Includes Bear Creek and Porkey districts.
Group E 1.92
Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emienton, Tiona, Lacy and Kinzua districts.
Price depends on length of pipe line haul to plant at Oil City.

Tide Water Pipe Co.
(Effective April 25, 1932)

Bradford, Pa. $2.02
Allegany, N. Y. 2.02

Pure Oil Co.
(Effective April 25, 1932)

Cabin Creek, W. Va. $1.70
Bradford Hollow, W. Va. 1.70
Kelly's Creek, W. Va. 1.70

TEXAS PANHANDLE

Gray County, Wheeler County and Carson-Hutchinson Counties.... See gravity table

ROCKY MOUNTAIN STATES

Ohio Oil Co.-Midwest Refining Co.

Ilea, light (Aug. 24, 1931) ..... $ .75
Ilea, heavy (Aug. 24, 1931) ..... .53
Fort Collins (April 11, 1932) ..... .86
Florence (April 11, 1932) ..... .80
Wellington (April 11, 1932) ..... .76
Greasewood Dome, Colo. (Apr. 11, 1932) 1.00
Dutton Creek (Apr. 11, 1932) ..... .82
Rock Creek, Wyo. (Apr. 11, 1932) 1.00
Frannie, light (Nov. 3, 1931) ..... .61
Frannie, heavy (Nov. 3, 1931) ..... .51
Salt Creek ..... Mid-Continent gravity table
LaBarge ..... Mid-Continent gravity scale
Big Muddy (Apr. 11, 1932) ..... .98
Grass Creek (Apr. 11, 1932) 1.29
Elk Basin (Apr. 11, 1932) 1.20
Lance Creek (Apr. 11, 1932) 1.15
Poison Spider (Mar. 5, 1931) ..... .70
Notches (Mar. 14, 1927) ..... .65
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1931) ..... .40
Rex Lake (Feb. 22, 1930) 1.10
Osage (Apr. 15, 1931) ..... .98
Lost Soldier (Apr. 12, 1932) ..... .80
Hamilton Dome (Nov. 3, 1931) ..... .45
Greybull (Apr. 11, 1932) 1.20
Cat Creek (Apr. 11, 1932) 1.20
Pondera (Nov. 3, 1931) ..... .90
Sunburst, Mont. (Apr. 11, 1932) 1.05
Hogback, N. Mex. (Aug. 24, 1931) ..... .80
Border, Mont. 1.55
Red Coulee, Alberta 1.55
Lea County, N. Mex. (Apr. 1, 1932)* ..... .65
Maljamar (Apr. 11, 1932) ..... .60
Artesia-Jackson (Apr. 11, 1932) ..... .65

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Midwest Refining Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Border and Red Coulee posted by Imperial Refining Co. Lea County posted by Humble Oil & Refining Co. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

*Posted by The Texas Company. Humble Oil & Refining Co. met this price effective April 11.

WEST TEXAS

Iatan and Westbrook..Same as North Texas
Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos Counties* ..... $ .65
Lea County, N. Mex. (See Rocky Mountain States.)
Toborg, Pecos County (Apr. 11, 1932)†.. .55

*Effective April 1, 1932, Magnolia Petroleum Co., The Texas Company. Effective April 11, Humble Oil & Refining Co. and Gulf Pipe Line Co. and Stanolind Oil & Gas Co. in Winkler County. †Shell Petroleum Corp.

GULF COAST

Grade A and Grade B classifications discontinued by leading buyers..... See gravity table
Jennings, La. (Apr. 11, 1932)* ..... $ .75
Lockport, La...See Gulf Coast gravity table
Refugio, light ..... See gravity table
Refugio, heavy (Apr. 11, 1932)‡ ..... .80
Markham (Apr. 11, 1932)§ ..... See Gulf Coast gravity schedule
High Island (Apr. 11, 1932)¶ ..... See Gulf Coast gravity schedule

*Gulf Refining Co. †Magnolia Petroleum Co. ‡Humble Oil & Refining Co. §The Texas Company. ¶Yount Lee Pipe Line Co.

NORTH LOUISIANA AND ARKANSAS

Smackover, Ark. (all grades) ..... $ .65
Urania, La. (Apr. 12, 1932) ..... .60
East El Dorado, Ark. (Apr. 6, 1932)... .65
Stephens, Ark., below 29° (Apr. 12, 1932) .60
Stephens, Ark., 29° and above (Apr. 12, 1932) ..... .64
Other fields ..... See gravity table

Note—Smackover, all grades, The Texas Company, April 1, 1932; Magnolia Petroleum Co., April 6, 1932; Standard Oil Co. of Loui-

(Continued on Next Page)

Crude Oil Gravity Table

	Kansas and Oklahoma 1	North and Central Texas 2	East Central Texas 3	Gray County, Texas 4	Carson and Hutchinson Counties, Texas 5	Salt Creek and LaBarge, Wyoming 6	North Louisiana and Arkansas 7	Gulf Coast (Texas-Louisiana) 8	Cameron, Meadows, Louisiana 9	Iowa and Lockport, Louisiana 10
Below 25 degrees	....	....	$.67	....	....	....	$.68	$ 80	$ 70	$.80
25-25.9 degrees	....	....	67	....	....	....	70	81	71	.81
26-26.9 degrees	....	....	67	....	....	....	.72	.82	.72	.82
27-27.9 degrees	....	....	67	....	....	....	.74	.83	.73	.83
28-28.9 degrees	....	....	.76	....	....	....	.76	.84	.74	.84
Below 29 degrees	$ 76	$.76	....	....	....	$.76	....	....	....	....
29-29.9 degrees	.78	.78	.78	....	....	.78	.78	.85	.75	.85
30-30.9 degrees	.80	.80	.80	....	....	.80	.80	.86	.76	.86
31-31.9 degrees	.82	.82	.82	....	....	.82	.82	.87	.77	.87
32-32.9 degrees	.84	.84	.84	....	....	.84	.84	.88	.78	.88
33-33.9 degrees	.86	.86	.86	....	....	.86	.86	.89	.79	.89
34-34.9 degrees	.88	.88	.88	$.76	$ 66	.88	.88	.90	.80	.90
35-35.9 degrees	.90	.90	.90	.78	.68	.90	.90	.91	.81	.91
36-36.9 degrees	.92	.92	.92	.80	.70	.92	.92	.92	.82	.92
37-37.9 degrees	.94	.94	.94	.82	.72	.94	.94	.94	.84	.94
38-38.9 degrees	.96	.96	.96	.84	.74	.94	.96	.96	.86	.96
39-39.9 degrees	.98	.98	.98	.86	.76	.94	.98	.98	.88	.98
40 degrees and over.	1.00	1.00	1.00	.88	.78	.94	1.00	1.00	.90	1.00

Note—Magnolia Petroleum Co.'s prices in Oklahoma, North Texas and Central Texas, effective April 1, are the same as above given in Columns 1 and 2, excepting that the schedule begins with below 28 degrees, 67 cents; 28-28.9 degrees, 76 cents. The Empire Pipe Line Co. met the Magnolia prices in Kansas and Oklahoma; the White Eagle Oil Corp. in Kansas and the Pure Oil Co., in Oklahoma.

Column 1—Effective April 1, 1932, Continental Oil Co. in Oklahoma and Kansas; Barnsdall Refineries, Inc., and Standish Oil Co. (Phillips Petroleum Co.), in Oklahoma and Kansas; Skelly Oil Co., Kanotex Refining Co., Derby Oil Co., Vickers Petroleum Co., in Kansas; Magnolia Petroleum Co. and Pure Oil Co., in Oklahoma (see note above); White Eagle Oil Corp., in Kansas (see note above); The Texas Company in Oklahoma. Effective April 11, 1932, Stanolind Crude Oil Purchasing Co. in Oklahoma and Kansas; Gypsy Oil Co., Mid-Continent Petroleum Corp., Champlin Refining Co., Eason Oil Co., Pepper Gasoline Co. and Carter Oil Co. in Oklahoma. Carter Oil Co.'s schedule begins at below 25 degrees, 68 cents, with 2 cents added for each degree upward.

Column 2—Continental Oil Co., effective April 1, in North Texas only; followed on same day by The Texas Company in North and Central Texas; Magnolia Petroleum Co. in North and Central Texas (see note above); effective April 11, the Humble Oil & Refining Co., Gulf Pipe Line Co. and Stanolind Crude Oil Purchasing Co.

Column 3—Effective April 1, 1932, the Magnolia Petroleum Co., effective April 11, 1932, Humble Oil & Refining Co.

Column 4—Effective April 1, 1932, Magnolia Petroleum Co., effective April 2, the Philtex Oil Co. (Phillips Petroleum Co.), but its schedule was carried down to below 30 degrees at 66 cents, with 2 cents added for each degree upward. Effective April 11, other companies met Continental schedule.

Column 5—Effective April 1, 1932, Magnolia Petroleum Co., effective April 2, Philtex Oil Co., excepting that latter company carried its schedule down to below 30 degrees at 56 cents, with 2 cents added for each degree upward. Effective April 11, Continental Oil Co. and Gulf Pipe Line Co. met Magnolia Petroleum Co. prices.

Column 6—Midwest Refining Co., effective April 11, 1932.

Column 7—The Texas Company, effective April 1, 1932; Magnolia Petroleum Co., effective April 6, 1932; Standard Oil Co. of Louisiana, Louisiana Oil Refining Co., Stanolind Oil & Gas Co. (in Pine Island and Pleasant Hill and in Marion County, Texas) and Gulf Refining Co., effective April 11, 1932.

Column 8—The Texas Company, effective April 1, 1932; Sun Oil Co., April 1, 1932; Humble Oil & Refining Co., effective April 11, 1932; Gulf Pipe Line Co., effective April 11, 1932. Gulf's gravity scale ends with a top of 35 and above at 91 cents.

Column 9—Magnolia Petroleum Co., effective April 6, 1932.

Column 10—Magnolia Petroleum Co., effective April 6, 1932.

(California Crude Oil Prices on Page 30)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

June 28, 1932

STANDARD OIL CO. (INDIANA)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Chicago	17.1	17 1	4 0	10.0
Decatur, Ill.	17.6	17.6	4.0	10.1
E. St. Louis	16 9	16 9	4 0	9.3
Joliet	17 6	17 6	4.0	10 1
Peoria	17 6	17 6	4.0	10.1
Quincy	17.4	17.4	4.0	9 9
Davenport, Ia.	17 7	17 7	4 0	10.4
Des Moines	17.7	17 7	4 0	10 4
Keokuk	17.7	17 7	4 0	10.4
Sioux City	17.3	17.3	4.0	10.0
Duluth, Minn.	18 7	18 7	4 0	11 0
Mankato	18 3	18 3	4.0	9.7
Minneapolis	18 4	18 4	4.0	11.0
LaCrosse, Wis.	19.4	19 4	5 0	11.1
Milwaukee	18 3	18 3	5 0	10 0
Madison	18.5	18.5	5.0	10.2
Detroit, Mich.	18 6	18.6	4.0	10 6
Grand Rapids	17 5	17.5	4 0	10.3
Saginaw	16.6	16.6	4 0	10.5
Evansville, Ind.	18 2	18 2	5.0	9.9
Indianapolis	18.4	18.4	5.0	10.1
South Bend	18.5	18 5	5 0	10.4
Fargo, N. D.	20.0	20.0	4 0	13 0
Huron, S. D.	19.5	19 5	5 0	11 8
Sioux Falls	19.0	19.0	5.0	11 5
K. C., Mo.	17.1	17.1	4 0	8.7
Springfield*	17.1	17 1	4.0	8.0
St. Louis*	16 6	16 6	4 0	9.4
St. Joseph	16 7	16.7	4.0	9 2
Wichita, Kans.	16.0	16 0	4 0	8.9
Bartlesville, Ok.	15.2	18.1	5.0	8.1

*State tax 2 cents, remainder city tax.

A third grade of gasoline, "Stanolind Blue," is sold at all major points at a price 1½ cents or more below the price on the regular grade.

Effective November 4—New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 3 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement: Same amounts as above except made off service station price instead of tank wagon price.

SOUTHWESTERN DISTRICT
Magnolia Petroleum Co.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Dallas, Tex.	16.5	18 0	5 0	10.5
Fort Worth	16 5	18.0	5.0	9.0
Houston	16 5	19 0	5.0	10.5
San Antonio	15 5	18.0	5 0	9.0
El Paso	16 5	19 0	5.0	12 0
Texarkana	*19 5	*19 5	5 0	†11.5
Muskogee, Ok.	15 5	18 0	5 0	9.0
Okla. City	15 5	18.0	5 0	9 0
Tulsa	15.5	18 0	5.0	9 0
Ft. Smith, Ark.	*15 5	*15 5	7.0	†9.0
Little Rock	*18.0	*18 0	7.0	†11 0

One-cent rebate made from posted station prices to cash purchasers in Louisiana, Arkansas and Tennessee.

*Less 2½ cents to dealers. †Less 2 cents to dealers.

SOUTHERN DISTRICT
Standard Oil Co. (Kentucky)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atlanta, Ga.*	22 0	22 0	7.0	11 0
Augusta	21.5	21.5	7 0	14.5
Macon	20 0	20.0	7 0	13 0
Savannah	20 0	20 0	7.0	13.5
Birm'ham, Ala.	21 0	21.0	7 0	11.0
Mobile	21 5	21.5	7.0	10 0
Montgomery	23 5	23 5	7 0	14.5
Jackson, Miss.	20.0	20.0	7 0	12 5
Vicksburg	20 0	20 0	7.0	10.5
Jack'ville, Fla.	19 0	19.0	8.0	12 5
Miami	22.0	22 0	8 0	13 5
Pensacola	22 0	22 0	8.0	13.5
Tampa	21 0	21.0	8 0	11.5
Lexington, Ky.	19 5	19 5	6 0	10.5
Covington	20.0	20 0	6 0	10 5
Louisville	18.0	18.0	6 0	10 5
Paducah	18.5	19.5	6 0	8.5

A third grade "Kyso Green" is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.12⅝ cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fourth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax and 2½ cents county tax.

Effective April 2 price to dealers 2 cents under posted tank wagon price.

*An additional discount of 1 cent is offered to dealers effective October 6.

ROCKY MOUNTAIN DISTRICT
Continental Oil Co.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Denver, Colo.	18 0	21 0	5 0	13.5
Pueblo	18 0	21.0	5.0	13.0
Grand Jctn.	20 0	23.0	5 0	15 5
Casper, Wyo.	17 0	20.0	5 0	11 0
Cheyenne	18 0	21.0	5.0	12 5
Butte, Mont.	23.0	26.0	6.0	17.0
Billings	23.0	26 0	6.0	15 5
Great Falls	23.0	26 0	6 0	17.5
Helena	22 0	25.0	6 0	17.0
Salt Lake, Utah	19.5	22.5	5 0	16 0
Albu'que, N. M.	18 0	21.0	7 0	14.0
Boise, Idaho	22.0	25 0	6.0	18.0
Twin Falls	22 0	25.0	6.0	18.0

PENNSYLVANIA-DELAWARE AND PART OF NEW ENGLAND
Atlantic Refining Co.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Pittsburgh, Pa.	17 0	18.0	4 0	11.0
Philadelphia	16 0	17 0	4 0	11.0
Scranton	17 0	18 0	4.0	11.0
Allentown	17.0	18.0	4 0	11.0
Altoona	17 0	18.0	4 0	11.0
Erie	17 0	18 0	4 0	11.0
Dover, Del.	17.0	18 0	4 0	11 0
Wilmington	17.0	18 0	4.0	11.0
Springf'd, Mass.	17.5	18.5	4 0	8.0
Worcester	17 3	18.3	4 0	8.9
Boston	16 5	17 5	4 0	8 0
Providence, R.I.	14.5	15.5	3.0	9.0
Hartford, Conn.	16.5	17 5	3.0	8 0
New Haven	16.6	17.6	3.0	8.0

STANOLIND FURNACE OIL IN CHICAGO

Effective July 1, prices f.o.b. Chicago, tank wagon prices: 1 to 99 gallons, 8 cents; 100 gallons or more, 6 cents.

Stanolex Fuel

Effective May 9, f.o.b. Chicago, tank wagon prices: 1 to 199 gallons, 7 cents; 200 gallons or more, 5 cents. Sinclair met this by bringing down the price of its No. 3.

Fuel Oils

Chicago tank wagon prices (in lots of 400 gallons and over): 38-40 straw distillate, 6 cents; 32-36 gas oil (light zero), 5.5 cents; 32-36 gas oil (industrial), 5.25 cents; 28-30 zero fuel oil, 5 cents; 24-26 fuel oil, 4.25 cents; 18-22 fuel oil, 3.75 cents.

CENTRAL SOUTH DISTRICT
Standard Oil Co. (Louisiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	21.0	21.0	7.0	†12 0
Baton Rouge	20.0	20 0	6 0	10 0
Alexandria	21 0	21 0	7 0	10.0
Lafayette*	21 0	21 0	7.0	†10.0
Lake Charles*	21 0	21 0	7.0	†12 0
Shreveport	20 0	20.0	6.0	†12.0
Knoxville, Tenn.	24 0	24 0	8 0	13.5
Memphis	22 5	22 5	8 0	11.0
Chattanooga	24.0	24 0	8 0	13.5
Nashville	23.5	23.5	8 0	13.5
Bristol	22 5	22 5	8 0	14.0
Lt. Rock, Ark.	21 0	21 0	7 0	11.5

*Includes city tax of 1 cent. Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

†Kerosene prices in Louisiana include 1-cent tax except New Orleans where tax is 2 cents.

Two-cent discount off gasoline and kerosene tank wagon price to dealer and commercial accounts.

NEBRASKA
Standard Oil Co. (Nebraska)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Omaha	17 0	18 0	5.0	10 25
McCook	18.1	18 1	5 0	11.75
Norfolk	18 85	19.85	5 0	10.75
N. Platte	19.1	19 1	5 0	11.5
Scottsbluff	18 1	18.1	5.0	11.25

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

OHIO
Standard Oil Co. (Ohio)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Ohio points	18 5	19.0	5 0	*12.0

Dealers and commercial accounts 2 cents under tank wagon.

*Service station price 13 cents.

PACIFIC COAST TERRITORY
Standard Oil Co. of California*

	Gasoline: Tank truck†	Gasoline: Posted retail	Gasoline: Incl'ds tax of	Kero. tank wagon
Fresno	20.0	18.0	4 0	17.0
San Francisco	20 0	18 0	4.0	15.5
Los Angeles	19.5	17 5	4 0	15.5
Reno, Nev.	24.0	24 0	5 0	19.0
Portland, Ore.	21 0	20.0	5.0	16.5
Seattle, Wash.	22 0	21.0	6 0	16.5
Tacoma	22 0	21 0	6 0	16.5
Spokane	25.5	24.5	6 0	20.5
Phoenix, Ariz.	19 0	21.5	6.0	20.5

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

*Retail prices posted by Standard Stations, Inc., a subsidiary.

NAPHTHA

	Tank wagon	Tank car
Oleum spirits	10.7	6.23
V.M.P. naphtha	12.7	7.23
Cleaners' naphtha	15.2	9.23
Stanisol	15.2	9.23

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

ATLANTIC COAST DISTRICT
Standard Oil Co. (New Jersey)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	16.9	17 9	4 0	11 2
Newark	16 2	17.2	4 0	8.5
Annapolis, Md.	18.5	19.5	5 0	10.0
Baltimore	17.9	18 9	5 0	7.0
Cumberland	19 4	20.4	5.0	11.7
Wash'g'n, D. C.	16.4	17 4	3 0	10 0
Danville, Va.	20 6	21 6	6 0	11 3
Norfolk	19.0	20 0	6 0	10.3
Petersburg	20 1	21 1	6.0	11.4
Richmond	19 4	20 4	6.0	10.7
Roanoke	20 6	21 6	6.0	11.9
Charles'n, W.Va.	19.3	20.3	5 0	11.6
Parkersburg	17.9	18.9	5 0	10.2
Wheeling	18 9	19.9	5.0	11.2
Charlotte, N. C.	22.2	23 2	7 0	12.5
Hickory	22.4	23 4	7.0	12.7
Mt. Airy	22 5	23.5	7.0	12.8
Raleigh	22 0	23 0	7 0	12 3
Salisbury	22 3	23 3	7 0	12.6
Charleston, S.C.	20.0	21.0	7.0	10 3
Columbia	21 9	22.9	7.0	12.2
Spartanburg	22 2	23 2	7 0	12.5

Two cents per gallon discount off tank wagon price of gasoline to dealers except Washington, D. C., and States of Maryland and New Jersey, where discount is 3 cents. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey.

Prices shown above are for standard gasoline.

NEW YORK AND PART OF NEW ENGLAND DISTRICT
Standard Oil Co. (New York)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Albany, N. Y.	16 5	17 5	4 0	10.0
New York*	13 5	13.5	4.0	9.5
Buffalo	17 5	18.5	4.0	9.0
Rochester	17.5	18.5	4 0	9 0
Syracuse	18 3	19.3	4 0	9 5
Boston, Mass.	16 0	17 0	4.0	9.0
Augusta, Me.	18 3	19 3	5.0	9.5
Manch'r, N. H.	17 9	18.9	5 0	9 0
Burlington, Vt.	18.8	19.8	5 0	10 0

*Prices in steel barrels.

TANK WAGON CHANGES

Standard Oil Co. of California, through its subsidiaries, advanced the gasoline wholesale and retail prices 2½ cents, June 27.

Standard Oil Co. of New Jersey reduced the gasoline tank wagon and station prices 1 cent in Newark and Atlantic City, N. J., June 21.

Standard Oil Co. of Louisiana advanced the gasoline tank wagon and station prices 1 cent on June 18, and on June 21 added another cent to equalize the Federal tax.

Magnolia Petroleum Co. reduced the gasoline tank wagon and station prices to 16½ and 18 cents in Dallas and Fort Worth, Tex., June 22. On May 26 the station price was reduced to 18 cents in Houston, Tex. June 18 the tank wagon and station prices were reduced to 14½ cents each in Fort Smith, Ark., and to 18 cents each in Little Rock, Ark.

SOUTHWEST GAS

Southwest Gas Utilities Corp., answering a receivership suit at Wilmington, Del., denies that unless a receiver is appointed its assets will be subjected to "vexatious liquidation." The company states that assets exceed liabilities, that it is able to meet all obligations except interest and sinking fund payments, and that the Manufacturer's Trust Co., trustee under an indenture under which the bonds were issued, has not declared any default. The company supplies gas and electric service to 40 communities in Oklahoma, Texas and Louisiana.

DELAY LONE STAR HEARING

AUSTIN, Tex., June 28.—The Railroad Commission has postponed the hearing set for July 11 on appraisal of the Lone Star Gas Co.'s Texas properties until appraisal of its Oklahoma lines and properties is finished.

Crude Oil Prices

(Continued from Preceding Page)

siana, Gulf Refining Co. and Louisiana Oil Refining Co., April 11, 1932. Urania posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co.; East El Dorado by Magnolia Petroleum Co., effective April 6, 1932; by Gulf Refining Co., effective April 11, 1932; Stephens, Ark., by Louisiana Oil Refining Co. and Atlantic Oil Producing Co.

SOUTH CENTRAL AND SOUTHWEST TEXAS

Darst Creek (Apr. 1, 1932)*	$ .75
Luling (Apr. 1, 1932)*	.64
Mirando (Apr. 1, 1932)*	.90
Pettus (Apr. 11, 1932)‡	1.00
Salt Flat (Apr. 11, 1932)‡	.75
Thrall§	
Lytton Springs (Lockhart) (Apr. 1, 1932)*	.94
Dobrowolski§	
Same as Mid-Continent gravity scale up to and including 38-38.9*	
Somerset†	
Same as Mid-Continent gravity scale up to and including 38-38.9°	

*Magnolia Petroleum Co., The Texas Company, Humble Oil & Refining Co. posted 80 cents for Mirando, April 11. §Thrall prices same as North Central Texas less 19½ cents per cwt. freight. †Grayburg Oil & Refining Co., Pioneer Oil & Refining Co. and Texas Petroleum Products. ‖Pioneer Oil & Refining Co. ‡Humble Oil & Refining Co.

MIDDLE WESTERN STATES
Ohio Oil Co.
(Effective April 11, 1932)

Lima	$1.15
Wooster	1.25
Illinois	1.10
Indiana	.75
Princeton	1.10
Plymouth	Shut in
Western Kentucky	1.05
Midland, Mich. (May 17, 1932)*	.65
Muskegon†	.95
Muskegon‡	.85
Somerset, Ky. (Apr. 25, 1932)	.85
Hart County, Ky. (June 10, 1932)§	1.00

*Posted by Pure Oil Co. Old Dutch Refining Co. pays 20 cents per barrel over Pure Oil Co.'s posted price. †Naph-Sal Refining Co. ‡Old Dutch Refining Co. §Posted by Stoll Refining Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through own pipe line.

MEXICO

Panuco*	$ .47

*F.o.b. ship, based on May transactions and exclusive of production and export taxes and bar dues.

CANADA

Ontario (Nov. 3, 1931):	
Petrolia*	$1.90
Oil Springs*	1.97
Alberta (Apr. 22, 1932):	
Turner Valley†:	
Crude oil 40-44.9	1.55
Crude oil 45-45.9	2.15
Crude oil 50 and above	2.50
Crude naphtha	3.32
Discolored naphtha	3.05

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

NEWS FOR SALES DEPARTMENTS

Motorists Now Pay $3,000,000 Daily In All Type Taxes

With the 1-cent Federal taxes on gasoline and 4 cents on lubricating oils which became effective June 21, owners of motor vehicles are now paying more than $3,000,000 daily in taxes for the privilege of owning and operating their cars.

Assuming that the state gasoline tax collections will be no larger than last year, the taxes for 1932 will total $540,000,000. The Federal tax of 1 cent is expected to raise $150,000,000. In addition the Federal tax on lubricating oils will total $33,000,000. A large number of counties and cities scattered throughout the United States have gasoline taxes and these will total around $2,500,000 for 1932.

The registration fees for 1932 will be $340,000,000 and at least $150,000,000 is collected as a personal property tax. This gives a total of all taxes paid yearly by the car owners of $1,200,000,000 or nearly $3,300,000 daily. The minimum gasoline tax is now 3 cents and in only two states and the District of Columbia is the tax that low. In certain parts of Alabama the gasoline tax totals 11 cents per gallon, a combination of Federal, state, county and city taxes.

IMPORTERS NOT SURE AS TO SCOPE OF TAX

NEW YORK, June 25.—Petroleum importers in the East are not yet thoroughly familiar with the Treasury Department regulations in connection with the new import duties, the new law having evidently been placed in operation in too short a period between enactment and enforcement to give the Treasury Department time to get out its regulations.

The present understanding of importers is that fuel oil imported for delivery to American vessels "going foreign" or engaged in runs between the Atlantic and Pacific Coasts, by way of the Panama Canal, is free of the import duty of 21 cents per barrel, and it is believed likewise that crude imported and refined into fuel oil for delivery to this class of buyers is likewise duty free.

No uncertainty exists as to the applicability of the import tax on other crude oil, gasoline, or other refined products. It is not yet quite clear, however, if refiners will be able to bring in crude or fuel oil "in bond" for delivery to foreign steamships for bunkering, and it is expected that this business will be classified under the heading of domestic sales with duty assessable.

The new regulations are expected to be available in printed form some time next week.

AMELIA EARHART, GUEST OF STANDARD OFFICIALS

NEW YORK, June 25.—Amelia Earhart, transatlantic flier (in private life Mrs. Amelia Earhart Putnam) was the guest of executives of the Standard Oil Co. of New Jersey at a luncheon at 26 Broadway this week. The flier was presented with a gold phonograph record of portions of her international broadcast from London by S. B. Hunt, vice president, in the company's board room.

Guests at the luncheon included E. M. Clark, F. H. Bedford, Jr., J. A. Moffett, C. G. Black, C. O. Swain, Christy Payne, Orville Harden, J. H. Senior, W. S. Farish, and Major E. E. Aldrin, in charge of Jersey's aviation division, and president of Stanavo Specification Board, Inc.

April and May Gasoline Consumption Slightly Better Than Predicted

Consumption of motor fuels is holding up at a rate a little in advance of forecasts, it was reported to the board of directors of the American Petroleum Institute in session at their New York headquarters last week. The Institute's committee of nine, designated to forecast the probable consumption of motor fuels for the last nine months of the year beginning with April, estimated at the mid-year meeting of the organization in Tulsa on June 1 that consumption would decline 6.6 per cent from last year's figures. At that time there were expressions of belief that the 1932 decline would be materially sharper. Facts were for April and May, however, Fred Van Covern, Institute statistician, reported to the directors that consumption was roundly 800,000 bbls. in excess of the committee's estimate. For April the consumption was 34,454,000 bbls., as against a forecast of 34,250,000 bbls., according to Bureau of Mines reports. Based on reports received by the American Petroleum Institute, consumption for May was 38,500,000 bbls., as compared with an estimate of 37,900,000 bbls.

Along with an analysis of production and consumption figures, Mr. Van Covern presented preliminary figures to the board showing a decline of 3.56 per cent in the total of motor vehicle registrations on April 1 this year, as compared with April 1, 1931, in 43 states and the District of Columbia, for which registrations were available. The declines in registrations were smaller on the eastern seaboard and Pacific Coast and larger in the interior of the United States from Canada west of the Great Lakes to the Gulf of Mexico.

LARGE PRODUCTION OF EMULSIFIED ASPHALTS

The output of emulsified asphalt in the United States in 1931 was over one-third larger than in 1930, according to figures compiled by the U. S. Bureau of Mines. The production of petroleum asphalts and fluxes emulsified with water increased from 27,211,169 gallons, or 115,647 short tons, in 1930, to 36,848,875 gallons, or 156,607 tons, in 1931. Only 12.1 per cent of the total output in 1930 and only 10.7 per cent in 1931 was made by petroleum refineries which manufacture asphalt directly from crude petroleum. By far the greater part of the production was prepared by industrial companies which purchased the asphaltic raw material from petroleum refineries.

Ten companies made asphalt emulsions in 1931. The principal plants producing emulsified asphalt were located near San Francisco, New Orleans and Baton Rouge, New York, Chicago and Philadelphia. Stocks of emulsified asphalt held by producers increased from 569,235 gallons, or 2,419 short tons, on December 31, 1930, to 756,378 gallons, or 3,215 tons, on December 31, 1931. During 1931 a total of 158,009 gallons, or 672 tons, was employed for miscellaneous needs compared with 300,000 gallons, or 1,275 tons, in the year 1930.

Sales of emulsified asphalts and fluxes by producers increased 37.1 per cent in quantity, from 26,631,806 gallons, or 113,185 short tons, in 1930, to 36,503,723 gallons, or 155,140 tons, in 1931, but only 31.5 per cent in value, from $2,692,928, in 1930, to $3,542,118, in 1931. The average sales value per gallon decreased 4 per cent, from $0.101 in 1930 to $0.097 in 1931.

Asphalt emulsions consist of extremely fine particles of asphalt, coated with a thin film of an emulsifying agent, usually a soap or a colloidal clay, and dispersed in water. When applied to rock or other surfaces, the emulsion breaks down, the water evaporates or is absorbed, and the asphalt remains as a protective coating. They are used chiefly for surfacing roads and highways, but in recent years have been applied to a number of industrial uses, such as moisture-proofing concrete, wood, cloth, and other substances; cementing tile; binding mastic flooring; coating pipes, and manufacturing various molded articles.

CALIFORNIA GALLONAGE SHOWS LITTLE CHANGE

Gasoline consumption in California during May showed little change from April, according to gasoline tax reports. The Standard of California continued to lead the distributors in the state, although its reported gallonage in May was less than in April. The following report gives the May and April gallonage of the largest distributors:

Company—	May	April
Standard	24,360,458	26,289,475
Shell	15,808,119	13,245,639
Union	13,927 227	13,536,821
Associated	10,670,962	10,557,811
Richfield	9,602,519	8,374,902
General Pet.	5,438,850	6,831,053
Texaco	5,432,435	5,422,587
Wilshire	4,768,748	5,947,447
Rio Grande	2,845,209	5,608,327
Hancock	2,711,632	2,711,632
Macmillan	2,590,519	2,845,809
Caminol	1,633,928	1,448,325
Western	1,476,240	1,413,606
Seaside	1,444,147	.....
Sunset	1,176,750	2,240,649
Petrol	1,058,683	1,084,759

DROPS "400" DESIGNATION

NEW YORK, June 25.—Shell Eastern Products, Inc., has discontinued the designation of "400" for its regular grade of motor fuel. Explaining the action, the company says: "At the time of the adoption of this brand name, '400' was indicative of one of the superior characteristics of this product. Since that time, however, the perfection of Shell refining methods has made it possible to produce this grade of gasoline with an even lower endpoint.

"As the term '400' referred to only one feature of the gasoline while every other feature such as starting quality, anti-knock, etc., has since been steadily improved, it has been decided not to emphasize the endpoint but to present it as 'Shell Gasoline' stressing all of the features which make it a superior, all around gasoline."

MARYLAND GASOLINE TAX

Maryland cannot collect a tax upon gasoline sold to the post exchange at Fort George G. Meade, it was ruled recently by Judge William C. Coleman, of U. S. District Court, Baltimore. Judge Coleman based his opinion on the Maryland gasoline tax law which levies upon motor fuel sold or distributed "in" the State. He held that a sale to post exchanges located within the geographical limits of Maryland cannot be regarded as a sale in the State.

TO RESUME TEXAS CASE LATTER PART OF JULY

AUSTIN, Tex., June 25.—District Judge J. D. Moore at Austin recessed the suit of Attorney General James V. Allred against 15 oil companies and two marketing associations, from Wednesday until the final week of July, after acting on incidental motions at the close of a half week's hearing. The case involves the alleged violation of the Texas anti-trust law by the defendant companies.

He sustained demurrers to a sworn motion filed on behalf of Cities Service Co. and the Texas Pacific Coal & Oil Co., presented by Lloyd Price, attorney, which asked removal of Bernard Martin of Wichita Falls as special assistant counsel with Mr. Allred, or, as an alternative, that Mr. Martin be denied access to the confidential files examined by the state under investigations in the anti-trust suit. The motion asserted that Mr. Martin had been employed by the Quaker State Oil Co., a business rival of the companies, and that his participation and examination of the files of the competitor companies was objected to.

Judge Moore, in sustaining demurrers to this motion, said that the State had the right to employ special counsel, that the questions as to whom he was employed by should not be made to others than the attorney himself; and that he was confident all attorneys in the case would be governed by the ethics of their profession and the statutes. "The law," he pointed out, "provides that counsel will not divulge records found in an investigation, except in a judicial proceeding."

When attorneys reassemble the last week in July, it will be for final disposition of two amendments in Attorney General Allred's amended original petition. All other exceptions were overruled before the recess was taken.

NINE PETROLEUM TAXES

With every state and now the nation imposing a severe penalty on the use of gasoline motive power, Mobile, Ala., still holds the record. Since the Congress has levied an impost of 1 cent a gallon on gasoline, that southern coastal city witnesses the payment of nine separate taxes on petroleum products. Here is a list of the separate taxes:

Wholesale gasoline license	$500.00
Wholesale lubricating oil license	250.00
Every filling station	25.00
Every pump (city tax)	35.00
Every pump (state and county tax)	50.00
State gasoline tax (per gallon)	.05
City gasoline tax (per gallon)	.01
Seawall gasoline tax (per gallon)	.01½
Federal gasoline tax (per gallon)	.01

OIL ELECTRIC TRAINS

CHATHAM, Ontario, June 25.—Extension of oil-electric train service to the Canadian West is forecast for the near future. Oil-electrics are under construction in eastern Canada for the Canadian Pacific Railway for use in the West, and plans are reported for replacing steam locomotives between Winnipeg and Regina. The Canadian National Railways will also use a gas or oil-electric train for special services between Regina and some adjacent points.

POWDERED COAL A SUCCESS

LONDON, England, June 25.—The experimental run of the Cunard liner Scythia from New York to Liverpool during which a mixture of about 40 per cent powdered coal and 60 per cent oil was used as fuel terminated with a savings of from 15 to 20 per cent in favor of the coal mixture. The mixture was handled in the regular oil equipment.

NEWS FOR PETROLEUM REFINERS

Eastern Refiners Inspect Plant of Kendall Company

BRADFORD, Pa., June 25.—More than 100 men connected with the operation of eastern plants took advantage of the opportunity today to visit the local refinery of the Kendall Refining Co., one of the largest refineries of the oil industry operated exclusively on Pennsylvania Grade crude oil. The visit was under the sponsorship of the National Petroleum Association, which each year arranges for its membership to visit one of the modern eastern refineries.

Groups were taken through the refinery, which is complete in its operation and has a rated crude oil capacity of 3,500 bbls. daily. Its main operation is devoted to the manufacture of Kendall lubricating oils. In the manufacture of these oils a special vacuum distillation process is used. The refinery also has Dubbs cracking equipment.

Otto Koch, president of the Kendall company, and I. H. Shearer, treasurer, welcomed the membership.

The following were here:

H. W. Walchli, J. H. Rowley and Clarence R. Johnson, Tiona Refining Co., Clarendon; Dr. A. Kinsel, W. H. Daugherty & Son Refining Co., Petrolia; Commander G. C. Davison, Tri-State Refining Co., Kenova, W. Va., and Ashland Refining Co., Ashland, Ky., trustee in charge of the department of manufacture, National Petroleum Association; Louis H. Zepfler, Standard Oil Co. of New Jersey, Jersey City; L. D. Fulton, D. J. Harvey, P. M. Robinson and J. S. Cavanaugh, Pennzoil Co., Oil City; O. W. Walchli, W. B. Chenault, A. D. Hill and H. A. Meissner, Sinclair Refining Co., Wellsville.

William H. Millhiser and George E. Willey, Waverly Oil Works Co., Pittsburgh; Louis W. Hodous and Roy G. Neikard, Canfield Oil Co., Cleveland; T. W. Helm, Canfield Oil Co., Coraopolis; Walter W. Beck and George M. Kirkwood, Pennsylvania Refining Co., Karns City; R. W. Clark, Viking Oil Co., Clarendon; W. H. Kennedy, Viking Oil Co., Warren; R. B. Allmendinger and Fred C. Eaton, Superior Oil Works, Warren; G. I. Kightlinger, Superior Oil Co., Clarendon.

MacLean Houston and J. S. Cameron, United Refining Co., Warren; Willis Crane, National Petroleum Association, Washington, D. C.; B. L. Heath and Ben A. Byron, Freedom Oil Works, Freedom; Thomas G. Murphy and C. E. McElliney, Franklin Creek Refining Corp., Franklin; J. B. McMillin, Republic Oil Refining Co., Pittsburgh.

Charles M. Noyes, Valvoline Oil Co., Butler; D. B. Mack, H. J. Dunmire and Ralph Brooks, Valvoline Oil Co., Warren; K. W. Nichols and H. L. Kauffman, Floridin Co., Warren; Donald L. Chestnut, R. G. Williamson, V. M. Irvine, Joseph L. Hennessy, Christ Petersen, Gerald C. Peck and A. K. Wickham, Warr-Penn Refining Co., Warren.

E. W. McKay, Jr., and Major Sharp, Bendix-Westinghouse Co., Pittsburgh; Hal Lowery, Davis Welding Co., Cleveland; H. E. Widdell, Arthur G. McKee & Co., Cleveland; H. R. Badger, Autocar Co., Pittsburgh; O. L. Blakeley, Pittsburgh; A. P. Wolff, York Ice Machinery Corp., Erie; Edward P. Bailey, William Ferguson, E. P. Bailey, Jr., and Walter F. Bailey, National Airoil Burner Co., Philadelphia.

A. W. Scott and William Smith, Wolverine-Empire Refining Co., Oil City; William H. Rockman, Quaker State Oil Refining Co., Farmers Valley.

Expect Refiners to Use Facilities of the Missouri Now Open for Navigation

KANSAS CITY, Mo., June 27.—Oil refiners and marketers are expected to shortly use the water transportation facilities of the Missouri River between this city and St. Louis including intermediate points. The river navigation facilities between the two cities were officially opened today when the towboat, Mark Twain, arrived, carrying a group of government officials including Secretary of War Hurley.

"I have the word of engineers," Secretary of War Hurley said to a Kansas City reception committee, "that we have an all-year-around 6-foot channel from St. Louis to Kansas City. The river looks particularly good now, because of the high water, but I am discounting that when I say a navigable channel has been made."

Petroleum refiners in this city have been considering the use of the Missouri River in the transportation of oil products for some time. The Standard Oil Co. of Indiana and the Phillips Petroleum Co. have refineries located here with distributing facilities located along the Missouri River between here and St. Louis. The Great Lakes Pipe Line Co. which transports gasoline from several Oklahoma and Kansas refineries also has a bulk terminal here and could use the river for transporting gasoline to points east and also west when the river is made navigable in that direction.

It is also pointed out that eventually refineries along the Mississippi River can ship gasoline and other products to this city for distribution. This includes the large refineries located along the Gulf Coast. Crude oil could also be brought inland via the Mississippi and Missouri Rivers.

IMPERIAL OIL, LTD., BUILD SMALL PLANT

Imperial Oil, Ltd., will build a small refinery in the Fort Norman Field of Canada to supply the increasing number of mining prospectors with oil. Crude will be run from the local field to the new plant and fuel oils will be made for use in operating the mines and gasoline will be made to supply fuel for the Mackenzie River boats. Because of its extreme northerly location heavy freight charges are encountered in moving oil to Fort Norman from the southern refining areas. This fact, together with the recent discovery and development of the mines at Great Bear Lake, prompted the company to build the refinery. Ronald W. McKinnon will supervise the construction and operation of the plant.

CONFIRM SHELL PROJECTS

CHATHAM, Ontario, June 25.—Further confirmation of the intention of the Shell Oil Co. of Canada to erect a new refinery at Montreal was given this week in an official announcement by President P. M. Fowlie, who also confirmed the report of a similar undertaking at Vancouver.

Mr. Fowlie stated that the company had purchased a site in Montreal East, north of Sherbrooke Street, and intended to proceed with construction without delay. The initial plant will have a daily output of 100,000 gallons of gasoline, with other products, and will be ready for operation by January. It will represent an investment of over $2,000,000.

The company's plans include further intensive development of its program of distribution by the Great Lakes. In addition to extensions to the large bulk installations recently completed at Toronto, Hamilton and Kingston, the company will construct similar installations at other lake ports in Ontario.

QUAKER STATE IN CANADA

NEW YORK, June 25.—Quaker State Oil Refining Co. has organized a Canadian subsidiary, Quaker State Oil Refining Co., Ltd., to handle its business in the dominion.

Quaker State Oil Refining Co., Ltd., is establishing a blending plant at Toronto where the full line of Quaker State products will be prepared for distribution to the Canadian trade.

C. S. HALL, DIVISION MANAGER OF MARATHON

Charles S. Hall has been made division sales manager at Fort Worth, Tex., for Marathon Oil Co., subsidiary of Ohio Oil Co., according to announcement by Lewis B. McCannon, vice president in charge of manufacturing and sales. Hall succeeds the late S. R. Scivally.

Mr. Hall is a former Transcontinental employe, having served that firm for 11 years, joining it at Pittsburgh when it was the old Riverside Oil Co. When the two Riverside companies were made nucleus for the Transcontinental, Mr. Hall left Pittsburgh in 1919 to become superintendent of the Boynton, Okla., refinery.

He later served the old Marland Refining Co., being in charge of its Chicago sales office, and more recently was in charge of the Champaign, Ill., division office for Cities Service Oil Co.

COLORADO COLOR REQUIREMENTS

Specifications for colored gasoline have been drafted by the state inspector of oils of Colorado, and will be officially published within the near future. The specifications setting forth the special qualities a gasoline must have before it may be artificially colored in Colorado are: Gasoline considered to have special qualities, justifying the use of artificial coloring, shall have the following specifications in addition to the requirements of law for ordinary gasoline, to-wit: Octane number, minimum of 70; sulphur, maximum of .05 per cent; performed gum, maximum of 15 mg. per 100 c.c.

The octane number shall not be attained by the addition of chemicals or substances which will be deleterious to the motors in which such gasoline shall be used, and no chemicals or substances shall be so added for such purpose unless the use thereof shall first be approved by the state oil inspector.

BUYS WALES PIPE LINE

J. G. Ginsberg has taken over the Wales Pipe Line Co. gathering line in the Kilgore area, Gregg County, and is building a booster station to increase capacity of same. Two 80-horsepower boilers and one 6½x14 pump are being installed in the station. Capacity of the line will be in the neighborhood of 7,000 bbls. per day.

Quaker State Corp. Adding Crude Unit At Oil City Plant

OIL CITY, Pa., June 25.—The Quaker State Refining Corp. has started work on a new crude oil unit at its refinery located here. The refinery was formerly operated under the name of the Independent Refining Co., but is now one of four refineries of the Quaker State interests and operated directly by that company. It is the second major installation to be announced for a local refinery this month, the Pennzoil Co. having previously announced that it would build a 3,000-bbl. reforming unit at its Rouseville refinery.

The new Quaker State unit will have a capacity of 1,000 bbls. daily and will be a straight reducing unit. It is being installed by the Foster Wheeler Corp. With this unit in operation the Quaker State refinery will have a daily capacity of 2,500 bbls. The plant is one of the oldest of the refining industry, having been in operation for 52 years. Several improvements have been made in the plant equipment over the past three years.

WINSHIP RESIGNS AS CHALMETTE PRESIDENT

W. E. Winship, who has been president of the Chalmette Petroleum Corp. for several years, has resigned to engage in private business. He also resigned as head of the Westwego Petroleum Barge Line, Inc., an affiliated company.

B. C. McClellan, who has been vice president of the two corporations, has been elected to fill the position made vacant by Mr. Winship's resignation. George P. Gillette has been appointed sales manager of the Chalmette corporation succeeding Louis Abramson, Jr., resigned. In an official announcement the Chalmette corporation stated that A. G. Lobdell, the corporation's representative at Franklin, La., is authorized to purchase products necessary for its territory. These purchases will be made by Mr. Lobdell direct instead of through the New Orleans offices. D. B. Williams is executive vice president of the corporation and R. P. Batson, secretary.

It is understood that Messrs. Winship and Abramson, Jr., will organize a marketing concern to operate in the southeastern states.

RESTRAIN ETHYL USE IN LABORATORY NAME

DALLAS, Tex., June 25.—Judge William H. Atwell in a suit brought by the Ethyl Gasoline Corp. enjoined Henry Klibanow from trading under the name of Ethyl Laboratories. The court held that the word "Ethyl" was part of the trade-mark of the Ethyl Corporation.

"Because a word is in the dictionary," Judge Atwell held, "it is not the property of the multitude after it has been appropriated by some one."

START CRACKING UNITS

NEW YORK, June 25.—Anglo-Persian Oil Co., Ltd., has placed its new cracking units at its Abadan, Persian, refinery in operation during the past year, and this has greatly added to the flexibility of the company's refining facilities, says the company's annual report, issued this week in London.

Societe Generale des Huiles de Petrole, French affiliate of Anglo-Persian, has started work on the construction of its new refinery near Marseilles.

NATURAL GASOLINE MANUFACTURE

Less Natural Used In Mid-Continent by Refiners This Year

Summarizing the trend of production and consumption of natural gasoline in the Mid-Continent area for the first four months of this year and last year based on Bureau of Mines reports, the Western Petroleum Refiners Association has prepared the following table:

STOCKS AT MID-CONTINENT GASOLINE PLANTS
(Thousands of gallons)

	First 4 mo. 1931	First 4 mo. 1932	Pct. change
Oklahoma—total	15,505	14,476	*6 6
Oklahoma City	3,607	3,332	*7 6
Osage County	3,524	2,242	*36 4
Seminole	3,899	4,408	†13.1
Rest of State	4,475	4,494	†0.4
Kansas—total	2,477	1,206	*51 3
Texas—total	11,473	12,583	†9.7
Panhandle	5,781	5,962	†3 1
North Texas	1,402	1,128	*19.5
West Central	3,290	4,205	†27.8
Rest of State	1,000	1,288	†28.8
Louisiana—total	1,159	1,211	†4 5
Arkansas—total	254	309	†21 7
Stocks at natural gasoline plants, Apr. 30, total	30,868	29,785	*3 5

*Decrease. †Increase.

PRODUCTION IN MID-CONTINENT
(Thousands of gallons)

	First 4 mo. 1931	First 4 mo. 1932	Pct. change
Oklahoma—total	167,300	136,100	*18 6
Oklahoma City	15,800	28,300	†79 1
Osage County	24,300	16,500	*32 1
Seminole	65,600	41,900	*36 1
Rest of State	61,600	49,400	*19.8
Kansas—total	11,000	9,500	*13 6
Texas—total	154,100	121,400	*21.2
Panhandle	73,100	60,100	*17 8
North Texas	14,400	8,700	*39.6
West Central	45,100	31,000	*31.3
Rest of State	21,500	21,600	†0.5
Louisiana—total	19,100	17,800	*6 8
Arkansas—total	10,100	6,900	*31 7
Tll. Mid-Continent	361,600	291,700	*19 3

*Decrease. †Increase.

STOCKS OF NATURAL GASOLINE AT MID-CONTINENT REFINERIES
(Thousands of gallons)

	First 4 mo. 1931	First 4 mo. 1932	Pct. change
Oklahoma and Kansas	2,730	798	*70 8
Inland Texas	882	924	†4 8
N. La. and Ark.	462	126	*72.7
Coastal Texas	10,668	13,608	†27.6
Coastal Louisiana	42	...	*100 0
Stocks at local refineries, April 30, total	14,784	15,456	†4 5

*Decrease. †Increase.

NATURAL GASOLINE USED BY REFINERIES
(Thousands of gallons)

	First 4 mo. 1931	First 4 mo. 1932	Pct. change
Oklahoma and Kansas	71,652	61,026	*14.8
Inland Texas	47,082	39,648	*15.8
N. La. and Ark.	16,842	12,600	*25 2
Coastal Texas	94,542	40,782	*56 9
Coastal Louisiana	28,350	13,062	*53.9
Total used in shipments	258,468	167,118	*35 3

*Decrease.

RECEIPTS OF NATURAL GASOLINE AT REFINERIES
(Thousands of gallons)

	First 4 mo. 1931	First 4 mo. 1932	Pct. change
Oklahoma and Kansas	74,088	60,606	*18 2
Inland Texas	46,788	40,362	*13 7
N. La. and Ark.	16,716	12,474	*25.4
Coastal Texas	95,718	42,924	*55 2
Coastal Louisiana	28,392	12,978	*54.3
Total receipts	261,702	169,344	*35 3

*Decrease.

PRODUCTION OF NATURAL GASOLINE IN EXCESS OF REFINERY DEMAND
(Thousands of gallons)

	First 4 mo. 1931	First 4 mo. 1932	Pct. change
Okla. and Kans.	104,212	84,994	*18.4
Texas	11,594	38,114	†228.7
La. and Ark.	‡15,908	‡752	....
Total excess	99,898	122,356	†22.5

*Decrease. †Increase. ‡Deficit.

Conditions In East Texas Field Lowering Output of Natural Gasoline Plants

By G. H. L. KENT
Humble Oil & Refining Co.*

Available figures for the East Texas Field indicate that the average gas-oil ratio to date has approximated 360 cubic feet of gas per barrel of oil. Therefore, there has been produced 57,600,000,000 cubic feet of gas, of which only a small portion has been utilized.

Assuming that the gas-oil ratio of the East Texas Field will average 500 cubic feet per barrel through its producing life, there will be 970,000,000,000 cubic feet of gas produced with the estimated future recoverable 1,940,000,000 bbls. of oil.

The first G.P.M. test secured on the gas produced with the oil in the East Texas Field was secured from L. D. Crim 2, in the Kilgore district, on March 5, 1931. The trap pressure was 60 pounds at the time the sample was taken. The well was producing 9,840 bbls. of oil and 3,575,000 cubic feet of gas daily with the gas-oil ratio of 364 feet. The analysis of the sample is as follows:

	Per cent by volume	Net G.P.M.
Methane	51.7	...
Ethane	16.2	...
Propane	20.1	...
Butane	9.1	2.85
Pentane	2.2	0.80
Hexane and heavier	0.75	0.35

Therefore, the gasoline in this gas, stabilized to 26-70 specifications, would average approximately 1.65 G.P.M. On March 16, 1931, another sample of gas was taken from the trap with a back pressure of only 3.9 pounds, which was as low as could be held under the rate of flow. Other conditions were approximately the same as in the test shown above. This analysis showed:

	Per cent by volume	Net G.P.M.
Methane	36.7	..
Ethane	14.5	..
Propane	23.5	..
Butane	14.9	4.6
Pentane and heavier	10.4	4.2

This gas is much richer than the 60-pound gas as it contains approximately 6 gallons stabilized 26-70 specifications gasoline.

The temperature of the oil passing through the traps at the time these samples were taken averaged approximately 122° F. These temperatures are normal when such rates of flow are used over any length of time, as the bottom hole temperature averages about 146° F.

When the condensate was weathered down to atmospheric pressure and 60° F., the percentage remaining was somewhat lower than a plant equipped with stabilization equipment could be expected to recover, since considerable pentane and heavier was necessarily lost in the weathering process. By proper stabilization, none of the pentane and heavier originally condensed should be lost.

It is interesting to note that tests made during high rates of flow showed greater G.P.M.'s. This fact is undoubtedly due to the high temperatures attending higher rates of flow. Below are some of the tests run during February, 1931, and May, 1931:

February 15, 1931

Well:—	Net G.P.M.	Bbls. day	Trap press.
Humble, No. 1 Crim	3.00	480	0
Humble, No. 1 Crim	2.74	480	1
Humble, No. 1 Crim	2.48	480	3
W. B. Hamilton, No. 1 Camp	4.96	2,100	3
Haynes Bros., No. 1 Brown	4.65	3,500	5
Teck, No. 1 Loyd	3.11	1,400	6
Humble, No. 1 Crim	1.36	480	17
Humble, No. 1 Crim	0.66	480	50
Ark. Fuel Oil, No. 1 Lathrop	2.00	4,500	55

May 20, 1931

Well—	Net G.P.M.	Bbls. day	Trap press.
Hum le, No. 1 Crim	3.5	297	0
Humble, Nos. 6, 7, 16 Crim.	5.6	3,005	0
Humble, No. A-1 B. F. Laird	3.9	366	0
Humble, No. A-1 D. Johnston	2.8	100	0
Humble, No. 1 M. & R. Kangerga	3.6	475	0
Humble, No. 1 C. J. Thompson	3.6	800	0

On August 11, 1931, the Humble Oil & Refining Co. began the construction of two gas conservation plants in the East Texas Field. The larger, or London plant, was placed in operation on October 28, 1931, while the smaller, or Kilgore plant, was not completed and placed in operation until November 20, 1931. The London plant has a capacity of 10,000,000 cubic feet daily, while the Kilgore plant has a capacity of 5,000,000 cubic feet daily. Three stage compression was installed in both plants, that is 12.5-inch vacuum to 35-pound discharge, 35-pound suction to 300-pound discharge, 300-pound suction to 1,600-pound discharge. The following tables show the distribution of horsepower installed in each plant:

1. London—The total engine horsepower of the plant is 3,320, divided as follows:

H.P.	Stage	Intake (lbs.sq.in.)	Discharge (lbs.sq.in.)
1,300	1	12½-in. vac.	35
1 200	2	35	300
500	3	300	1,600
160	Drive for aux. equip.		
160	Stand-by for aux. drive.		

2. Kilgore—The total engine horsepower of the plant is 1,680, divided as follows:

H.P.	Stage	Intake (lbs.sq.in.)	Discharge (lbs.sq.in.)
640	1	12½-in. vac.	35
640	2	35	300
320	3	300	1,600
80	Drive for aux. equip.		

The third stage was installed for repressuring or pressure maintenance, but due to the great demand for fuel gas the entire amount of gas remaining after gasoline extraction has been used in the field and no use has been made of that stage.

Both plants are located in Rusk County. The London plant is built on the R. E. L. Silvey tract in the southern part of the Thomas Martin Survey, while the Kilgore plant is on the J. N. Peterson lease, Isaac Ruddle Survey.

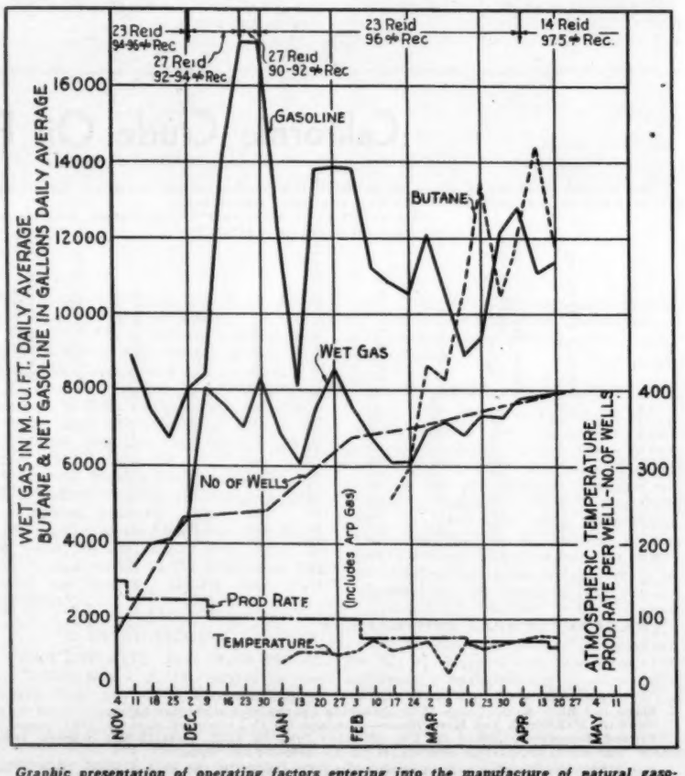
The plants, although located in different areas, are connected so that the raw gasoline from the Kilgore plant is transported by pipe line to the London plant, where it is stabilized into finished products and shipped either by tank car or pipe line. The two plants are serving approximately 405 wells to date, scattered over 8,800 acres of producing leases.

The accompanying curves show the allowable production per well per day, the total daily gas volumes of both plants, the net gasoline produced daily and grades of gasoline, the net butane produced daily, the average atmospheric temperature, and the number of wells tied into the plant each month.

The first three months of plant oper-

(Continued on Page 40)

*Part of paper delivered at convention of Natural Gasoline Association of America in Tulsa May 17-19.



Graphic presentation of operating factors entering into the manufacture of natural gasoline and butane in the Humble Oil & Refining Co.'s plants in the East Texas Field.

TO CUT WITHDRAWALS THURMAN HILL STATES

Thurman Hill, chairman of the Kansas Public Service Commission, made the following announcement after his conference with eastern oil executives.

"The oil executives were asked in behalf of the Oil States Advisory Committee, of which I am a member," said Chairman Hill, "to reduce their withdrawals of crude oil from storage to a figure not in excess of 100,000 bbls. a day for the next three months, with the further proviso that withdrawals thereafter be reduced to 50,000 bbls. for the following three months. The present rate of withdrawal is about 200,000 bbls. a day out of storage."

The chairman declared that the oil states committee had been assured by the eastern group that they would reduce their takings from storage to co-ordinate with the reduced takings from the oil fields. These will be cut by 50 per cent beginning at once.

"This, in my judgment, will result ultimately in more oil being purchased from producers in the field and at a better price. Definite progress was made toward further stabilization of the industry at this conference and as a result an important announcement may be expected within the next 30 days.

"The producing program of the oil states adopted last autumn was instrumental in curbing output and bringing about an advance in the price of petroleum, which had been selling as low as 5 cents a barrel in Texas and for 18 to 20 cents a barrel in Kansas," said Mr. Hill. "After adoption of a proration program by the states two problems yet remained to be solved to stabilize the industry. One was the imports of foreign oil coming on the market and competing with domestic production. The other was the withdrawals from storage.

"Imports hereafter will be restricted by the tax on foreign oil by perhaps 50 per cent. There remains reducing withdrawals from storage."

WITHHOLD TENTATIVE APPROVAL OF C.F.R. TEST

(Continued from Page 13)

glycol, having a boiling point between 195 to 200° C., shall be used as the bath liquid. The bath shall be fitted with a reflux condenser at the top of which a drying tube containing calcium chloride shall be connected. The bath shall be insulated with asbestos paper. An electric hot plate capable of keeping the liquid boiling actively is the preferred heating means. In the absence of a satisfactory hot plate the bath may be heated by a gas burner in which case the apparatus should be placed in a hood with a good draught.

(c) Air Supply.—Low-pressure air, passing through a cotton or glass-wool filter and delivered to the preheater inlet of the bath. A flow meter or other air-measuring device shall be provided as shown in Figure 1. (Flow meter is not drawn to scale.)

5. Procedure.—The beaker shall be washed free from gum with benzol-alcohol, soaked in chromic-acid cleaning solution, washed with water, dried with a lint-free cloth and, while held with tongs, dried in the free flame of a Bunsen burner, after which it shall be allowed to cool for at least one hour in a desiccator. If the air in the balance to be used is dried with a desiccant then this same desiccant shall be used in the desiccator; otherwise no drying agent shall be used in the desiccator. The beaker shall then be weighed, all weighings being made by tare against a similar beaker which has been subjected to exactly the same treatment (omitting the gasoline) at exactly the same time as the test beaker. The same beaker may be used as a tare for more than one test beaker but not for more than six test beakers provided all are heated at the same time. Strict attention shall be given to these details of weighing in order to provide the accuracy necessary when low gum contents are involved.

After weighing, the beaker shall be placed in the well of the bath as shown in Figure 1. The air flow shall be adjusted to a rate of 1 liter per second, ±15 per cent. The bath shall then be heated so that the temperature of the effluent air, measured by a thermometer placed on the bottom of the beaker at the center, shall be from 180 to 190° C. This is governed largely by the rate of boiling of the bath liquid and the rate of air flow.

The metal adapter shall be removed and 50 ml. of the gasoline poured into the beaker after which the adapter shall be replaced on the air outlet so that it is vertically above the center of the surface of gasoline. After the gasoline has evaporated, which should require from 5 to 10 minutes, the beaker shall be left in place for an additional 15 minutes, the air supply being maintained. The beaker then shall be dried in an air oven at a temperature of from 300 to 310° F. for exactly one hour. The beaker shall then be allowed to cool for one hour in the desiccator and weighed as described above.

6. Results.—Results shall be expressed in milligrams of gum per 100 ml. of gasoline.

Fuel Oil

Technical Committee C on Fuel Oil reported that the organization of its membership had been completed to the end of representing all interests involved, with the scope defined as including all fuel oils having a flash over 100° F., specifically excluding kerosene. Arrangements for co-ordination with the British Standards Association have been effected. Recommendations regarding Commercial Standards 12-19 on Fuel on Specifications were adopted on the basis of a questionnaire recently submitted to the industry. The recommendations do not involve major changes in those specifications; the distinction between domestic and industrial fuels is determined, changes in description of the various grades are made, and the following maximum limits for sulphur content, in the case of special uses only, are proposed:

Grade No. 1	0.5%
Grade No. 2	0.5%
Grade No. 3	0.75%
Grade No. 4	1.25%
Grade No. 5	no limit
Grade No. 6	no limit

It was also reported that co-ordination with the group representing the A.S.M.E. and S.A.E., dealing with the research work at several universities on "Diesel Fuel Oil," had been effected.

Consideration of the recently proposed revision of the Government Fuel Oil Specifications was postponed and a special group of the Fuel Oil Section of the A.T.S.M. is to be appointed to co-operate with the Government Technical Committee on the details of the proposed revision.

Lubricating Oils

The A.S.T.M. Temperature-Viscosity Chart, representing the authoritative means of plotting the viscosity of lubricating oils against temperature, was adopted earlier in the year and has already been described in these columns.

Minor revisions in the methods for Flash Test and Cloud and Pour Test were adopted. A subcommittee was appointed to standardize the Sligh oxidation test. It was announced that a Symposium on Motor Lubricants would be held in March, 1933, Sectional Meeting of the Society at New York.

Stoddard Solvent

Technical Committee D was recently appointed to deal with specifications for Stoddard solvent, embracing the membership of the standing committee of the Commercial Standards Unit on this subject. This group has under consideration the recent proposal to narrow the boiling range of Stoddard solvent and a study of the correlation of drying time in practice with boiling points. A special test for residue is also under way. This work will be continued further before action is taken.

The following specifications were recommended as the result of an investigation still in progress at the U. S. Bureau of Standards:

Flashpoint		Not below 100° F.
Distillation	10% point	330° F., maximum
	90% point	375° F., maximum
	Endpoint	410° F., maximum

MANY THINGS HAPPENED DURING CABLE DRILLING

(Continued from Page 12)

pipe it was decided to give Mr. Phillips a chance to demonstrate what he could do.

To continue with Mr. Phillip's story, he states:

"There was a bumper in on top of the cement. I made a real fishing socket and got the bumper the first run. (Luck, they said).

"Then I made a small string of tools and drilled 45 feet of cement from around the cable on top of the tools. (Luck again.)

"Then I cut the cable off the tools, then tried to run the tools and discovered that they stopped 40 feet down and I had to drill the cement out of the pipe from top to 3,650 feet and pumped out 40 bags of the 60 bags of cement which had been poured in.

"Then I ran a blind box on a 32'x4" stem with 36" Spang jars and drove for six days but could not move them, so I had to start figuring. The next day I made a tool which did the trick.

"I got a tube 54 feet long, welded a pin in top and steel teeth on the bottom and started to drill.

Not Much Room

"You see I only had three-eighths inch clearance between the tools and the pipe and as I had to have the tube small enough to run inside the 6⅝-inch and large enough to allow the tools to go inside and as you will understand that tools dropping have a rotary motion and ground the cement out, therefore there was nothing to it.

"When I got to the bottom of the string lost in the cave, gas blew through so I pulled out and ran the socket and the first tap they swung loose and we pulled them out.

"We cemented the cave below the pipe, sidetracked the two strings and cemented them in and drilled by once more and kept going.

"This is a very cavy formation and caves badly all the way. There are places where you cannot go more than 8 feet without doping the hole. What I mean by that is I use half cement and half sand with calcium chloride (quick set) and drill it out before it sets too hard, as I find that the cement has a tendency to drive into the crevices if not too hard and does not crack or sidetrack.

"Of course, there is no definite time to let it set owing to the depth of the hole and the temperature of the formation. This hole is 5,500 feet deep and it is pretty hot.

"We are 5,500 feet deep at this time and have not changed the size of the hole since I started to 3,800 feet, which gives us 1,700 feet of open hole in good condition. I have shut this hole down for two months at a time and have gone back and started up again and found the hole clear of any cavings.

"I know that I can drill this hole just as far as the company wishes to go using the methods described above."

California Crude Oil Prices

(Effective June 26, 1932)

For current purchases of crude oil at the well (unless otherwise specified) for allowable crude oil produced in accordance with allocations made by the California Statewide Curtailment Committee.

(All gravities above those quoted take highest price offered in that field)

Gravity—	Signal Hill (Long Beach)	Seal Beach, Alamitos Heights, Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canyon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Athens, Rosecrans, Dominguez	Montebello	Wheeler Ridge	Coalinga	Whittier-LaHabra
14-14.9	$ .65	$ .65	$ .65	$ .65	$ .65	$ .65	$ .65	$ .65	....	$ .55	$ .55	....	$ .65	$ .55	$ .55	$ .65
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
20-20.9	.69	.69	.71	.69	.69	.69	.69	.65	....	.59	.59	....	.65	.57	.59	.68
21-21.9	.74	.74	.77	.74	.74	.74	.74	.66	....	.63	.63	....	.67	.60	.62	.72
22-22.9	.79	.79	.82	.78	.79	.79	.79	.70	....	.69	.69	....	.70	.63	.65	.77
22-23.9	.84	.84	.88	.82	.84	.84	.84	.76	....	.75	.75	....	.73	.66	.68	.83
24-24.9	.89	.89	.92	.86	.89	.89	.89	.81	.73	.81	.81	.89	.76	.69	.72	.89
25-25.9	.93	.93	....	.91	.93	.93	.93	.86	.79	.87	.87	.93	.80	.72	.75	....
26-26.9	.97	.97	....	.96	.97	....	....	.90	.84	.92	.91	.97	....	....	....	....
27-27.9	1.00	....	....	....	1.00	....	....	.94	.89	.97	.94	1.00	....	....	....	....
28-28.9	1.03	....	....	....	1.03	....	....	.98	.94	1.02	.99	1.03	....	....	....	....
29-29.9	1.06	....	....	....	....	....	....	1.02	.98	1.07	1.02	1.06	....	....	....	....
30-30.9	1.09	....	....	....	....	....	....	1.05	1.02	1.12	1.05	1.09	....	....	....	....
31-31.9	....	....	....	....	....	....	....	....	1.06	....	....	1.12	....	....	....	....
32-32.9	....	....	....	....	....	....	....	....	1.10	....	....	1.15	....	....	....	....
33-33.9	....	....	....	....	....	....	....	....	1.14	....	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	....	1.22	....	....	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Playa Del Rey—Subject to a field gathering charge of 5 cents per barrel.

Newhall, McKittrick and Kern River—Standard Oil Co., effective June 23, 1931, posted 55 cents for oil of all grades.

Elwood Terrace—Standard Oil Co., effective June 26, 1932, posts 33-33.9 degrees, $1.04; 34-34.9 degrees, $1.10; 35-35.9 degrees, $1.16; 36-36.9 degrees, $1.22; 37-37.9 degrees, $1.28. All prices f.o.b. ships.

Note—The above prices were posted by the Standard Oil Co. of California, and it was announced on Tuesday, June 28, that other companies are meeting them.

Potter County Gasser Made 16,000,000 Feet After Cementing Job

WELLSBORO, Pa., June 25.—The Williamsport Natural Gas Co.'s No. 1 Nugent, in the Hebron district, western Potter County, which began producing gas in large volume before the casing was set, has been completed and has proved itself to be a 16,000,000-foot gasser. One hundred and forty bags of quick-setting cement was used in the job of setting casing, Claud Kincaid of the Halliburton company coming on from a western field to do the job, assisted by R. M. Atwater of the Drilling & Exploration Co. of New York. This well has 16 feet of Oriskany sand. Surface elevation at the well is 1,869 feet, and the top of the sand was found at 4,859 feet, or higher than was expected.

Only four drilling wells in the Tioga Field in Tioga County were active this week. Work in the field has been held up pending a decision on rate cases in markets available to the field.

Late Fields

KANSAS

Gypsy Oil Co. and others' No. 1 Kozisek, in Section 16-16-10w, a semiwildcat a half mile northwest of the Stoltenberg Pool, in Ellsworth County, was swabbing 27 bbls. of oil an hour after a 50-quart shot in the Silicious lime at a total depth of 3,385 feet. The owners were building more tankage to make a production test.

In the extreme west side of Ellsworth County, Vickers Petroleum Co., T. C. Johnson and Marland Oil Co.'s No. 1 Claues, in Section 31-16-10w, a wildcat test, was drilling at 3,150 feet. It is expected to reach the Silicious lime toward the end of the week.

Midwest Refining Co.'s No. 29 Scheufler, in Section 29-20-11w, Barton County wildcat, about 3 miles west of the Isern area, was coring at 3,135 feet. It showed saturation in the Lansing formation.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., June 28.—H. H. Coffield's No. 1 Wendt, half mile west of Suttles' No. 1 Bennett in northern Duval County, in sand at 2,279-92 feet, on quarter-inch choke is flowing 2,045 bbls. oil daily. It extends the field for oil production one-half mile west. Southwest Drilling Co. is still working on its No. 1 Wendt, one-half mile south of Coffield, and will make a well, but doesn't look as good as Coffield's.

Texas Gulf Producing Co.'s No. 1 Webb Hearn, wildcat in Bee County, in sand at 5,948-50 feet, has a showing, but caving formation is making it difficult to get drill stem test. It has considerable kick and aroused interest.

OKLAHOMA

The third well in the new Lincoln-Creek County line pool has been brought in. The well is Stanolind Oil & Gas Co.'s No. 1 Boyer, NE cor. SW, Section 1-15-6, which was drilled 1 foot into the pay topped at 3,680 feet, where it flowed 480 bbls. of oil in 24 hours. It was then shut in for tankage and a pipe line connection.

Pure Oil Co.'s No. 1 Oglesby-Pinkston, SE cor. NW, Section 1-15-6, which was drilled to a total depth of 3,713 feet, was plugged back to 3,711 feet after it made only 165 bbls. of oil, cutting 5 per cent. After being plugged back it made 425 bbls. of oil in 18 hours.

The other well in the new pool, Gypsy Oil Co.'s No. 1 Pinkston, a location west of the Pure Oil Co.'s well in Section 1-15-6, is shut in.

In the southwest section of the Oklahoma City Field the Indiana Territory Illuminating Oil Co.'s No. 1 Miller, NE cor. NW, Section 35-11-3w, was drilling at 6,678 feet with nothing showing. This well is located a half mile south of the Phillips Petroleum Co.'s No. 1 Berg, and a half mile west of the Indian Territory Illuminating Oil Co.'s No. 1 G. Lord, both of which were producers.

Watchorn Oil & Gas Co.'s No. 1 well in the NW cor. SW, Section 24-6-3, Pottawatomie County, is a new location.

Superior Oil Corp.'s No. 7 Maldin in Section 32-5-5, Beebe Field, Pontotoc County, made 130 bbls. of oil after a 40-quart shot from the Viola lime at 2,475-2,536 feet.

Nelson & Flynn's No. 1 well, NE cor. SW, Section 12-7-13, Pittsburg County, is a wildcat location.

Production of the Oklahoma City Field for June 26 was 59,577 bbls. from 36 wells; on June 27, 31,751 bbls. from 101 wells; on June 28, 142,360 bbls. from 163 wells.

EAST TEXAS

FORT WORTH, Tex., June 28.—C. L. Tubbs' No. 1 J. H. Sharp, in the Santos Coy Survey, Cherokee County, came in flowing through tubing and casing into pit estimated good for from 5,000 to 7,000 bbls. per day, a surprise well, producing from 1 foot of saturated sand cored from 3,721-22 feet and extending the Joiner area another three-quarters mile southwest and proving more acreage to production.

Engine Powered Machine Is Developed For Putting Coating on Pipe Line

Recognizing the need for some method of applying hot coatings to pipe lines that would reduce the possibilities of forming bubbles and pineholes, voids and holidays and reduce to a minimum the errors due to manual application, Charles W. Walker of Tulsa began investigations some two years ago on this problem with the result that he has developed a light, engine-powered coating machine for applying any type of hot coat to pipe, also a machine for wrapping the pipe with protective paper or felt.

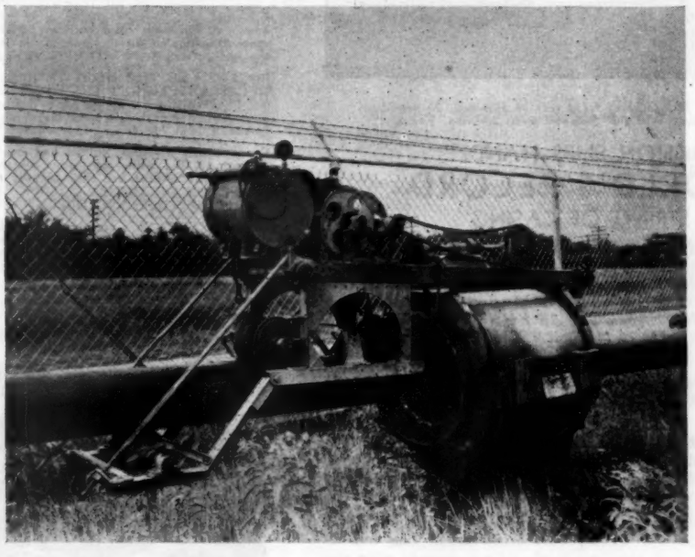
The coating consists of a drum of sufficient diameter to properly surround the pipe to be treated, a carrier for same and also for the power unit, and a rotor to which is attached cups which dip the hot material out of a reservoir and carry it over the pipe. Wipers are so placed that the coating is applied in two layers which can be made of any desired thickness within reasonable limits.

The material to be used for covering the pipe is heated in the usual type of field kettle and poured into the reservoir inside of the coating drum where it is kept hot by a gasoline fired heating chamber. The operation of pouring the coating over the pipe is so adjusted that preheating of the pipe takes place and aids materially in securing a good bond between metal and coating.

The cups pick up the hot coating from the reservoir and pour it over the top of the pipe while the lower portion of the pipe is submerged in a bath of this hot coat. The wipers remove air bubbles in the coating and insure a uniform spread and because of the fact that a very considerable excess of coating is poured over the pipe the results are reported as quite satisfactory.

The machines are made in sizes for pipe from 6 to 24 inches in diameter and the coating units with engines weigh from 560 to 1,050 pounds. A wrapping machine can also be supplied and combined with the coating unit and those combined units will weigh from 680 to 1,275 pounds. The coating units have a maximum speed of about 10,000 feet per day for the small size for 6 and 8-inch pipe and 5,000 feet for the 20 to 24-inch size and the combined units for both coating and wrapping will do from 7,000 to 4,000 feet for the same sizes of pipe.

The present unit, according to Mr. Walker, is well adapted for use on either new or old lines and while some saving in the number of men needed for the work has been effected the principal advantages of using these machines lies in the uniform application of the hot coat and the wrapping materials. The machine is being demonstrated at the Walker Engineering Co. plant on the Dawson road east of Tulsa.



Coating machine in operation.

ADD TO WIRT FRANKLIN PLANT

The Wirt Franklin Petroleum Co. is installing three 200 horsepower Clark compressors at its Lowery plant in the Oklahoma City Field in preparation for boosting the gas pressure for gas lift operations. The plant will have nine units after the three now under construction are completed. R. R. Owens, general superintendent, is supervising the work. The construction work is expected to be completed by the middle of July.

ANOTHER EAST TEXAS PLANT

The Excelsior Refining Co., organized by W. L. Morgan and associates, will construct a 4,000,000-foot gasoline plant on the Ward Oil Co.'s Giles lease in the M. J. Pru Survey of Rusk County in East Texas. Construction plans call for setting three units and other units will be added as gas deliveries warrant.

FUEL AND DIESEL OILS HIGHER AT GULF COAST

HOUSTON, Tex., June 27.—The new import tax of 21 cents on foreign oil was reflected the past week in a 10-cent advance in bunker oil postings at Gulf Coast ports which was followed also by a strengthening of bulk fuel prices. The increase came simultaneously with advances at the Atlantic seaboard. The new posting now is 70 cents, the highest since a year ago this month. Diesel bunkers also were boosted from $1.35 to $1.50.

The competition of Venezuelan crude for sometime has been responsible for the low fuel postings at ports in this coast and consequently Atlantic seaboard and Gulf Coast refiners were quick to respond to any increase in the laid down cost of outside oil. As it is, refiners in this country still have not absorbed the full 21 cents added to the cost of the South American crude.

Bulk fuel prices for cargo shipment now are being held at a minimum of 55 cents with some quotations as high as 60 cents. Actual movement of this oil, however, is not active, but there is not a great amount of material available for any spot demand.

Demand for other refinery products was only nominal and refiners are expecting very little business for some time due to the fact that buyers are thought to have filled most of their available storage previous to the application of the Federal tax on gasolines and lubricating oils. Although so far refiners have maintained their markets at pre-tax levels, gasolines for domestic demand possibly are slightly weaker in tone as the tank wagon market in this district absorbed the 1-cent tax, which was, in effect, a reduction in the tank wagon postings of a cent.

Lubricating oils also are feeling the effects of the pre-tax buying period and now virtually no inquiries are being received. Kerosenes continued sluggish during the week with little immediate buying in sight.

REFINING PROGRESS IN 1930-1931

The several papers concerning the developments in petroleum refining and the use of petroleum products during the years 1930 and 1931, which were published in the April and May issues of the Journal of the Institution of Petroleum Technologists, have been reprinted in booklet form of 200 pages, as Reports on the Progress of Naphthology.

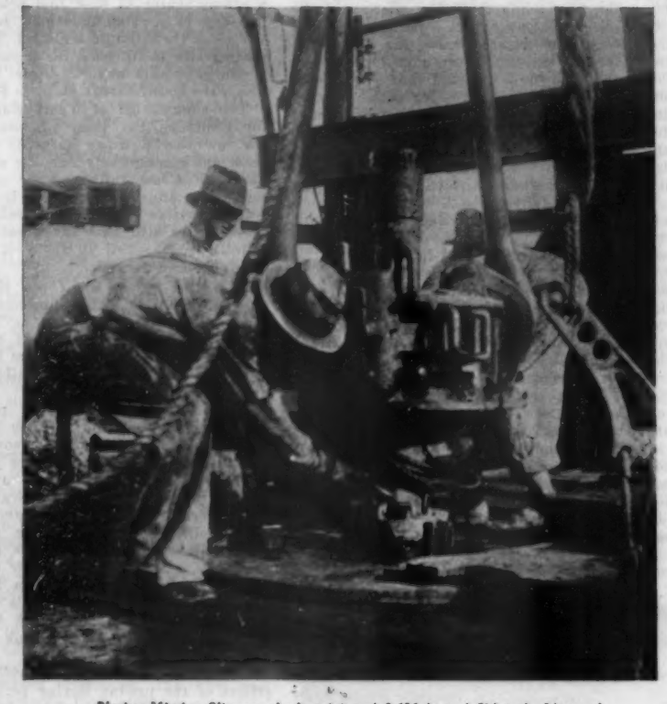
As an indication of scope of these papers, some of the subjects may be mentioned, including: Petroleum Geology, Oil Field Practice, Pipe Lines, Technology, Cracking, Distillation and Fractionation, Gasoline and the Gasoline Engine, Kerosene, Lubricants, Fuels, Oil Engines, and Road Materials. The articles, many of which are contributed by experts of international reputation, are well illustrated. This book may be obtained from the Institution of Petroleum Technologists, London, England. The price is 10s. 6d. (approximately $2.50).

PIPE LINE FOR MOROCCO FIELD

The Syndicate d'Etudes et de Recherches au Marco, with which the French Petroleum Office is associated, has completed two more wells at Djebel Tselfat, northern Morocco, with flows of about 50 bbls. of high grade crude daily, and the Bureau Minier Cherifien is reported to be considering the construction of a pipe line to the nearest loading point for tank cars, says the London Petroleum Times. Early this year shallow exploratory wells struck a highly promising oil zone, yielding about 200 gallons per day. Further drilling is proceeding actively in the Gharib Valley.

MOVE ASSOCIATION OFFICES

The California Natural Gasoline Association will move its offices from the Paramount Building to the twelfth floor of the Associated Realty Building, in Los Angeles. The new offices adjoin those of the California Oil and Gas Association and provide greater working space for Wallace McIlhany, the association's secretary.



Placing Mission Slips on the last joint of 9,131 feet of 5¾-inch, 26-pound casing at the Edwin M. Jones' No. 1-B Mitchell well, Refugio, Texas

MISSION SLIPS HANDLE WORLD'S RECORD STRING OF CASING

ASTOUNDING PROOF OF THE SUPERIORITY OF MISSION SLIPS was brought to the attention of oil men recently when it was decided to trust the 237,000 pounds weight of casing in the 9,131-foot Refugio well to Mission Slips rather than use elevators. *THE CASING WAS RUN AND THE WELL WAS CEMENTED IN 15 HRS. AND 15 MIN.*

NO ONE EVER BEFORE set a string of casing through a rotary bowl with rotary slips anywhere near that depth because it was believed that slips handling such great weight would damage casing.

MISSION SLIPS DID HOLD WITHOUT DAMAGE TO PIPE. Even with this tremendous weight of 237,000 pounds there wasn't the slightest mar on the pipe and the slips afterwards looked like they had just come from the factory.

WHY DID EDWIN M. JONES HAVE SUCH CONFIDENCE IN MISSION SLIPS? Because from long use of them he had found that they positively do not damage even the longest strings of casing or drill pipe. He was not afraid to use slips, providing they were Mission Slips, on 9,000 feet of casing because for several weeks he had made two round trips a day using 4" drill stem with tool joints. Mission Slips therefore handled approximately 36,000 feet of pipe a day with no perceptible damage to pipe.

SLIPS THAT ARE GOOD FOR 9,000 FEET ARE GOOD FOR EVERY JOB . . . . THEY PAY FOR THEMSELVES IN THE TIME, PIPE AND CASING THEY SAVE.

SUPERIORITY OF MISSION PRODUCTS PROVEN ON GULF COAST'S DEEPEST WELL

●

MISSION VALVES HANDLE WORLD'S DEEPEST SUCCESSFUL CEMENTING JOB

MISSION VALVES were used on the 20" oil well pumps on the 9,131 foot Refugio well because of their record of trouble free service under terrific pressure.

These valves were used both for drilling the well and when the pumps were compounded for the purpose of landing the cement in the bottom of the well. MISSION VALVES NEVER FAILED ON THE JOB.

BECAUSE OF THE HIGH TEMPERATURE IT WAS ABSOLUTELY NECESSARY TO GET THE CEMENT PUMPED DOWN AS QUICKLY AS POSSIBLE in order to keep it from setting before it reached bottom. Failure of pumps would have meant an unsuccessful cement job. For this reason, Edwin M. Jones, Independent Operator, chose Mission.

Even though Mission Valves had been in the pumps during the entire digging of this well, the same complete valve assembly was used for pumping the cement and they did the job successfully. WHAT GREATER PROOF OF MONEY SAVING, LABOR SAVING, LONG LASTING QUALITIES, AND DEPENDABILITY THAN THIS ! ! !

GUARANTEE: We unconditionally guarantee this valve for 6,500 feet of hole made in any territory within sixty days drilling, free of replacement parts. If it is necessary to replace any part or insert within this guarantee we will furnish same free of charge.

Pumps containing MISSION VALVES used for drilling and cementing 9,131-foot Refugio well (Edwin M. Jones' No. 1-B Mitchell well.)

TO MAKE MONEY BY SIDE-STEPPING TROUBLE AND SAVING TIME . . . ALWAYS USE MISSION SUPERIOR PRODUCTS

MISSION SALES COMPANY

2416 RAILROAD STREET HOUSTON, TEXAS

SERVICE ON NEW FIELDS

Conroe Field, Montgomery County, Gulf Coast

Compiled by The Oil and Gas Journal

LOCATION OF FIELD

Approved name.

Conroe. Sometimes the field has been referred to as Beach, which is a railroad siding at edge of present development.

Geographic location.

Central Montgomery County, Texas.

Principal towns and cities near field.

Conroe is only 3½ miles northwest of discovery well and tests now are drilling at edge of town. Houston is 40 miles south of the field. Cleveland, in Liberty County, is 20 miles east. Huntsville, Walker County, is 21 miles north on main highway to Dallas, 246 miles distant. Beaumont is 120 miles by way of Houston.

Cities and towns where supply houses have branches.

Fields in Southeast Texas (Texas Gulf Coast) generally are served directly out of Houston or Beaumont. Several independent Gulf Coast supply houses have obtained sites and are building stores at Conroe or Beach.

Railroads serving area.

International Great Northern Railroad (Missouri Pacific) has line from Palestine to Houston and Galveston, connecting at Palestine with Texas Pacific. Somerville-Beaumont branch of Gulf Coast and Santa Fe Railroad passes through Conroe east and west.

Types of sites available for supply houses.

Privately owned land adjacent to railroad right-of-way and close in town is available for sites. Large tracts are owned by timber companies for cutting and the surface rights in desirable locations can be purchased or leased.

Character of roads.

Federal highway No. 75 extending from Galveston and Houston to Dallas and northern points passes through Conroe. This highway is entirely paved, except 7-mile stretch near Ennis between Dallas and Corsicana. State highway No. 105, an all-weather gravel road, passes through the town east and west. This road connects at Cleveland with highway No. 35 from Houston to Shreveport. This road is paved or graveled the entire distance.

Type of country.

Country is heavily timbered. Part is high, particularly right around the town of Conroe, but most of the prospective immediate development will be in country which is low and swampy and somewhat wild and sparsely inhabited through which roads to new locations must be cut and most of them will have to be of corduroy construction. There is an abundance of saplings and logs for this purpose. The only entrance at present to the field is by way of a side road leading off the Conroe-Cleveland highway, 2 miles east of town at Beach, a railroad siding. The discovery well is 1½ miles to the south by way of a narrow, winding, corduroy road through the swampy woods. Construction of a good road leading off the Houston-Conroe paved highway at a point several miles south of Conroe is contemplated. The 4,368-acre property owned by the South Texas Development Co. and under lease to Strake Oil Corp., and now under option to Humble Oil & Refining Co., extends along the International Great Northern Railroad right-of-way, which the Houston-Conroe highway follows.

Trucking and hauling facilities available.

Several companies doing this work operate out of Houston in addition to smaller companies in Conroe. Joe D. Hughes, one of the largest oil field teaming contractors on the Gulf Coast, already has established a camp east of Conroe on the Cleveland road.

Hotel and other accommodations.

Hotel facilities modern but limited. However, Houston is within less than one hour's ride. Housing conditions rate about the average of what might be expected of town of few thousand population.

Electric power and gas companies.

Lights and power are furnished by Gulf States Utilities Co. with "high" line from Beaumont. Conroe has not had gas but town now is being piped by Moran Corp. of Houston, which has completed a 4-inch line to the town from the discovery well, a high-pressure gas well. This company also will supply gas to drilling rigs.

Domestic water supply.

An abundance of pure water is supplied from wells, this being found in a horizon around 1,200 to 1,300 feet.

Schools and churches.

Conroe has good, complete school system; also churches of leading denominations. Higher schools located conveniently at Houston and Huntsville.

General remarks.

Conroe is in wooded country with lumber plants capable of supplying building materials locally at reasonable prices and furnishing derrick material. It is conveniently located to Houston and food supplies and although a small town in itself enjoys the advantages of a close-by metropolis. The weather is mild the year around.

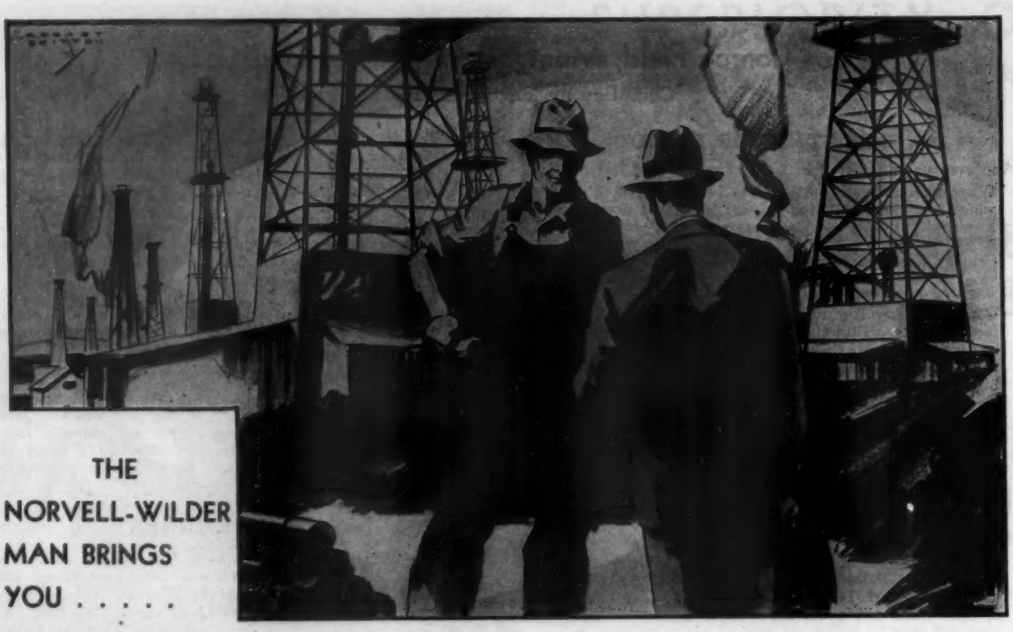
PIPE LINES

The field is conveniently located to market outlets, necessitating the laying of very little additional pipe, except gathering systems. Magnolia Pipe Line Co.'s trunk system from North Texas to Beaumont passes virtually through the field. Atlantic Pipe Line Co.'s 10-inch line from West Texas to Atreco runs within 10 miles north of the present field. Prairie-Pure Pipe Line Co.'s 8-inch line from Mexia to Smith's Bluff with Sinclair-Texas Pipe Line Co.'s 12-inch branch from Huffman Station to Sinco (Houston) and Stanolind Pipe Line Co.'s 8 and 10-inch line from Oklahoma and North Texas to Sinco are within 10 miles to the south. Shell Pipe Line Co.'s 10-inch line from East Texas to Deer Park (Houston) is within 20 miles to the east. The Texas Pipe Line Co.'s North Texas-Gulf Coast trunk passes within 20 miles to the southwest. Satsuma, a station on Humble Pipe Line Co.'s North Texas-Webster system, to which station this company is laying an 8-inch line from Conroe is only 28 miles. In addition, Humble Pipe Line Co., Gulf Pipe Line Co. and Sun Pipe Line Co. have lines out of Humble Field, within 20 miles of the field. Also, the field is so close to the coast that comparatively little pipe would have to be laid even if new lines were put in.

GEOLOGICAL DATA

Development of Conroe is at such an early stage that very little can be told definitely about the field from a geological standpoint. There was virtually no subsurface geology before the discovery well came in and to date no more than a half dozen deep tests have been drilled and locations of these have been such as to leave the nature of the trap or structure in doubt. Some geologists are of the opinion that the field is a deeply seated salt dome of unusually large size. Others hold that it is a shoreline condition which has been subjected to a subsequent uplift, while still others believe a folded or faulted condition exists. However, the area lies along what is known as the Jackson trend, which has been traced along the coast for several hundred miles, and which includes such fields as Raccoon Bend, Pettus and some small production at Sunshine, southern Polk County, to the east. The trend is along the Reynosa escarpment and Lagarto outcrop. The producing horizon has been fairly well established as being in that transitory age between marine and nonmarine deposition designated by some paleontologists as being at the base of the Diboll (lower Jackson) and by others as Cockfield (classed in the top of the Yegua). Showings in the horizon run from 4,900 to 5,200 feet but the top carries considerable gas. It has not been determined whether the gas and the oil are in one or separate horizons, but it is indicated there likely is a definite shale break between them. For the present, the top of the Hockley-ensis (middle Jackson) is being taken as the first marker, although due to lenticular condition there always is uncertainty as to the exact point at which this is picked up. Wells so far drilled have logged this top from 3,600 to 3,900 feet. The producing horizons also are expected to be lenticular, judging from other fields of the same age. A predominance of shales is characteristic. Surface elevation of the district as given by a check of the various wells in the immediate vicinity is from 142 feet to 206 feet.

The field was located primarily from oil seepages which have



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IN THEIR STRIFE TO MAKE MONEY

SUCCESSFUL OIL MEN HAVE LEARNED, over a period of many years, that it pays to depend upon the 21 years' oil field experience of the NORVELL-WILDER SUPPLY COMPANY in recommending equipment.

WHEN EVERY MINUTE'S DELAY COSTS MONEY

ANY WHERE, ANY TIME, ESPECIALLY IN NEW OIL FIELDS, A LITTLE ACCIDENT CAN RUN INTO BIG MONEY. Pump lines or valves gone haywire; a hose blown out; an urgent necessity for a packer; heavy draw works, swivel or power unit quickly needed . . . . any one of a thousand things can cause dollars to drip away while waiting.

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IF YOU WANT TOOLS IN AN EMERGENCY . . . . IF YOU WANT DELIVERY WHEN PROMISED AT ALL TIMES . . . CALL THE NORVELL-WILDER MAN . . . . FIRST.

Norvell-Wilder *Supply Company*

BEAUMONT HOUSTON SHREVEPORT FORT WORTH
OVERTON REFUGIO KILGORE LONGVIEW

SERVICE ON NEW FIELDS

(Continued from Page 33)

been known to some for many years. There is very little surface indication and as previously mentioned there was no subsurface information, except so far as the area is located along the "Jackson" trend. Considerable seismograph and torsion balance work has been done throughout the area but results have always been questionable although a "high" or possible salt dome was indicated as lying southeasterly from where the present production has been developed.

Formations are conducive to easy digging and consequently there will be little difficulty in keeping straight holes.

DEVELOPMENT

Discovery of the field.

The first well was completed December 13, 1931. This was G. W. Strake (now Strake Oil Corp.) No. 1 South Texas Development Co., located in the Theodore Slade Survey, 3½ miles southeast of Conroe. This well was completed at a total depth of 4,991 feet and made initially 14,000,000 feet of wet gas with a pressure of 1,500 pounds. This well since has built up pressure to 2,400 pounds and has been producing a light gravity, almost water white distillate containing about 90-10 gasoline and kerosene. As much as 100 bbls. daily has been yielded, although present production (June 15) is around 65 bbls. The fluid has been run to a small topping plant, built since the well came in, located 3½ miles to the west on the Houston-Conroe highway and products of which are being marketed locally.

Development subsequent to discovery of field.

On April 11, 1932, Heep Oil Corp. completed a wet gas well in its No. 1 Cartwright, John Davis Survey, 1½ miles northeast of the Strake discovery well. The well was at a depth of 5,078 feet and similar in every respect to the discovery well. On June 5, the first oil well was brought in, this being Strake Oil Corp.'s No. 2 South Texas Development Co., 2,450 feet south, 4 degrees east of No. 1, and completed at 5,026 feet. It was estimated at 1,200 bbls. of 38.9 gravity oil daily. Three days later, on June 8, Heep Oil Corp. completed its No. 1 Freeman, John Davis Survey, flowing an estimated 1,000 bbls. daily from a total depth of 5,122 feet.

Number of operations June 15.

Five rigs actually running. Two additional derricks up with one rig moving in. Five locations.

Future activity.

Many leases have been taken with 30 to 90-day drilling obligations and development provisions which will insure extensive drilling operations during next few months. Leasing has extended all along the same trend easterly across Montgomery County, southern San Jacinto County and Polk County. Much of this is in large blocks but many small, independent operators have cut into the play. Railroad Commission proration order provides that in Conroe district all small tracts must be pooled.

DRILLING CONDITIONS

Drilling water.

Plenty of good drilling water is available from shallow wells, which can be drilled at low cost. The water is noncorrosive and does not have to be treated. Several small streams, which traverse the area, can supply water, but it is not necessary to depend on these because of the accessibility of shallow well water.

Boiler fuel.

The discovery well, as did previous operations, used wood for fuel, which was plentiful and readily available for the cutting at a nominal figure. However, an abundant supply of gas now is available, the first two wells alone being rated at more than 30,000,000 feet of gas daily. The Moran Corp. of Houston has contracted with Strake Oil Corp. for the gas production from the discovery well and will supply drilling rigs. A 4½-inch line has been laid to Conroe and on this taps are being provided at frequent intervals to facilitate connections. The gas, being wet, is being stripped not only by the Strake Oil Corp. for the gasoline content but also by the Moran Corp. in a second process before entering the lines. The gas is available at from $35 to $45 per boiler per day, the amount depending on length of line to location.

How wells are drilled.

Drilling so far has been principally by company rigs and crews although it is likely that when development gets under way in earnest considerable contract work will be done.

Cost of drilling.

Cost of completed wells to 5,200 feet is estimated around $25,000 to $30,000. All wells so far have been put down by small operators. Due to lensing of sands and shale breaks and lack of knowledge of the area considerable coring has had to be done in drilling to date, which has increased costs somewhat. Extremely easy digging enables an important saving in time costs.

Drilling time to complete well.

Thirty to 45 days have been required on the few wells drilled so far. This time will be cut materially when the character of the formations and structure are determined so that operators will not have to feel ahead quite so carefully as they do now because of the virgin territory and uncertainty of pay horizons. Each well has been permitted to set longer than necessary after cementing casing.

Type of drilling equipment.

Rotary rigs are used exclusively as is the case in all coastal country. Only standard equipment is needed as so far no particular peculiarities in drilling problems have developed. All rigs to date have been powered with steam-driven engines. Two 115 to 125-horsepower boilers have been customary. Size of engines, 12x12. Slush pumps 14x7x18 and 12x6x16.

Location of boilers or generators.

All boilers or electrical generators must be at least 150 feet from any well.

Electric power.

Electric power line of Gulf States Utilities Co. traverses field, making electricity available for drilling rigs and possible later pumping.

Derricks.

All derricks so far have been wooden, 122 feet high. These have been built under contract, the lumber generally being furnished by local saw mills and yards. Two steel derricks have been moved into the field but so far have not been erected. Wooden derricks must be thoroughly held by guy wires.

Type bits and drill stem.

Fishtail bits have been used throughout. Rock bits not needed so far. Drill pipe is 4-inch, 16.60-pound. Tool joints used at every joint.

Drilling mud.

Natural mud made in drilling but after approximately 3,500 feet weight admixture is advisable because of gas pressures encountered in a series of horizons of the Jackson shales. Gas cutting of mud without admixtures is likely.

Casing.

Wells so far drilled have set and cemented surface pipe at depths ranging from 326 feet to 466 feet, using pipe varying from 10-inch to 13⅜-inch. An order issued by the Railroad Commission effective June 24, however, requires a minimum of 1,400 feet of surface casing. The hole then is drilled to the pay horizon where the production string is seated. Use of 7.04-inch (I.D.), 7⅝-inch (O.D.) casing probably will be customary. Weight of casing is 26.75 pounds. Under Railroad Commission orders the production string must be cemented within 50 feet of the top of the sand to be tested. Due to the fact that only four wells have been completed to date, and the uniformity of depth and nature of the producing sands have not been determined, no definite depths for seating of the casing have been ordered. Determination of sands to be tested is to be made by coring and drill stem tests.

Cementing of casing.

Railroad Commission orders require that surface casing be cemented on plug with cement filling the annular space be-

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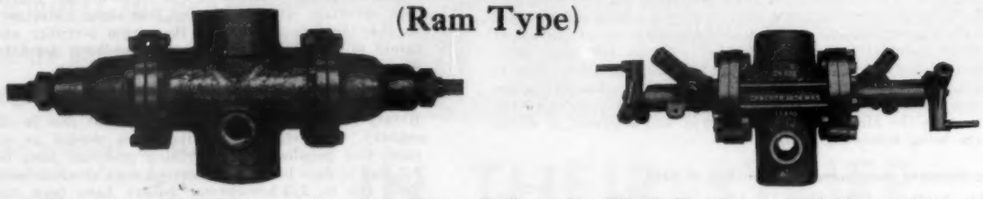
Tubing Control Heads

(Ram Type)



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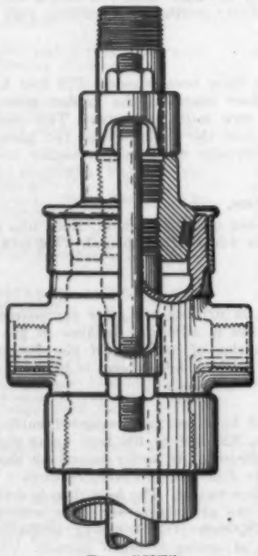

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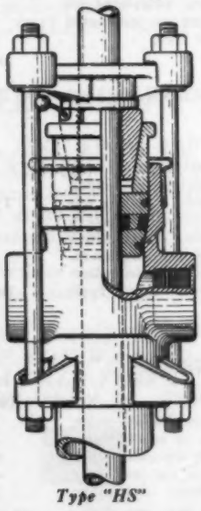

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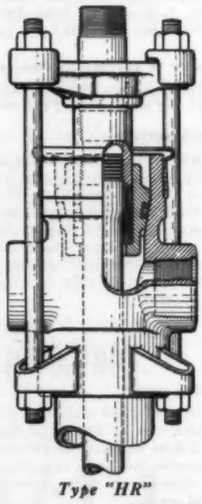

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SERVICE ON NEW FIELDS

(Continued from Page 35)

hind the casing at least 200 feet above the shoe and that the cement be allowed to set at least 48 hours. In cementing the production string the annular space must be filled at least 1,200 feet above the shoe and the cement allowed to set at least 72 hours. Pumping cement from top or between surface and production casing to stop leaks is prohibited.

Screen and liner.

Regulation well screen rather than perforated pipe is being used in the field, following usual Gulf Coast practice. The amount of screen naturally varies with section of pay taken in. The first two wells, which were gassers, set 67 and 110 feet, respectively, but it is probable too much of the gas horizon was taken in them. The last two wells, which produced oil, set only 24 and 30 feet, respectively, blanking off more of the upper portion of the horizon, and setting only in the actual oil pay. It is customary to run the screen in on several joints of blank pipe, sealing off to the casing, and 2½-inch tubing to top. Under the Railroad Commission order June 15 it is required that tubing be set within one joint of the top of the sand. Setting of screen follows immediately the drilling of plug as it is practice to have hole reamed to bottom before setting of casing on plug.

Drill stem tests.

It has been the practice to make drill stem tests of most of the showings encountered and particularly toward the bottom to determine the seating of the casing. These are made with the established testing tools. It is customary to rathole into the pay horizon, test, and then ream to bottom before setting casing.

Gas hazards and blowout preventers.

The Jackson shales are known for their gas pressures and drilling of wells will require adequate blowout prevention equipment and methods. Elaborate cellar controls have not been used so far. Railroad Commission orders require the use of an adequate blowout preventer on each well at all times after a depth of 3,500 feet is reached whenever drill pipe is out of the hole. The production string and well fittings must be subjected to pressure of 3,000 pounds before completion of a well.

Slush pits.

Pits must be at least 40 feet from the derrick and at least 150 feet from any other fire hazard.

Straight hole drilling.

A maximum deviation from vertical of 5 degrees is permitted in holes drilled on tracts 20 acres and over. On tracts of between 10 and 20 acres, a deviation of only 4 degrees is permitted, and on smaller tracts a maximum of 3 degrees has been set. Deviation tests must be made at intervals of 500 feet or less. A representative of the Railroad Commission must witness the test if possible, although if representative is not present after reasonable length of time after notificiation of test, an affidavit by operator will serve.

Rig builders and contractors.

Derrick and rig builders and contracting firms available as well as a number of independent contractors.

PRODUCTION PRACTICE

General.

So far the field is only in its early stages and the most efficient and practical production methods have not been determined. Completions have been limited to date to four wells, two of which are wet gassers while the other two are oil wells. Both of the latter at this time are shut in for storage while the gas wells have been produced primarily for drilling fuel.

Proration restrictions.

As extent of field has not been determined, no limitations have been placed on production so far. A temporary Railroad Commission order, however, has limited gas-oil ratio to 1,000 feet per barrel, allowing for there being 1,000 feet of gas per barrel in solution at the bottom of the hole and 1,000 feet for lifting the oil. The ratio probably will be reduced as soon as more is learned concerning conditions in the field. Other restrictions have to do with spacing of wells and methods of completion and equipment, these being mentioned elsewhere.

Completion of wells.

No well can be completed without written permit from Railroad Commission representative in field, permit being given when representative is satisfied all regulations of commission have been met. Completion must be during daylight hours.

Completion restrictions.

Production string must have been thoroughly tested for leaks and must have been subjected to pressure of 3,000 pounds at top of hole after cementing. Also the bradenhead or christmas tree and fittings must have been tested to 3,000 pounds before bringing in well. If leaks appear around bradenhead after test, a new production string must be run and cemented.

Method of completion.

Most wells probably will come in after washing. Wells within the townsite, on school lands or other small tracts must be cleaned through separators or stock tanks to avoid fire hazards, etc. Wells completed on chokes. Tubing required in all wells.

Method of production.

All flowing wells must be produced through chokes. Size of choke will be determined by individual conditions pending setting of production allowances later. Limit on choke at present governed by limit of 2,000 feet per barrel gas-oil ratio. All operators required to report once a month to representative of Railroad Commission their respective gas measurements by wells. Gas-oil ratios to be figured from these measurements.

Gas-oil ratios.

Present gas-oil ratios not definitely determined. First two wells primarily gassers and considering small volume of distillate, or condensate, produced ratio is very high. By deepening and blanking off present producing horizon volume of gas may be reduced and oil output increased. No gauge made of gas of two oil wells, but gas output estimated at less than 1,000,000 feet each, making gas-oil ratio under 1,000 feet per barrel. See "Gas" under General Conditions.

Character of oil.

Gravity of the oil in the discovery oil well (Strake Oil Corp.'s No. 2 South Texas Development Co.) is 38.4 (corrected). This oil on a laboratory test showed up as a naphtha, kerosene and gas oil crude with gasoline yield small and very little lub content. Octane rating of the top cut, a 51.2 gravity naphtha having an endpoint of 454 degrees is 53. The oil is sweet and dark green in color. The fluid in first two wells, which were rated as wet gassers, varies from 53 to 58 gravity and is almost water white color with an approximate 90-10 gasoline and kerosene content on actual processing. This is run through small topping plant near field. Temperatures of the oil coming from wells are from 85 to 95 degrees.

Separators and tankage.

High-pressure and low-pressure separators used. The high-pressure separators test 500 pounds. Pressures off the separator range from 25 to 26 pounds. Field tanks ranging from 750 bbls. to 1,000 bbls. capacity used. Additional storage may not be needed because of ample pipe line capacities near at hand. Separators and tankage must be located at adequate distance from well to eliminate fire hazard, and fire walls must be provided.

Well-head pressures.

Working pressures of wells at completion have ranged from 500 to 1,400 pounds. Discovery well since completion, December 13, 1931, has built up to 2,400 pounds.

Bottom-hole pressures.

No bottom-hole pressures so far taken.

Salt water conditions.

Salt water not in evidence as yet. Problem of disposal of water not considered so far. All wells which start making

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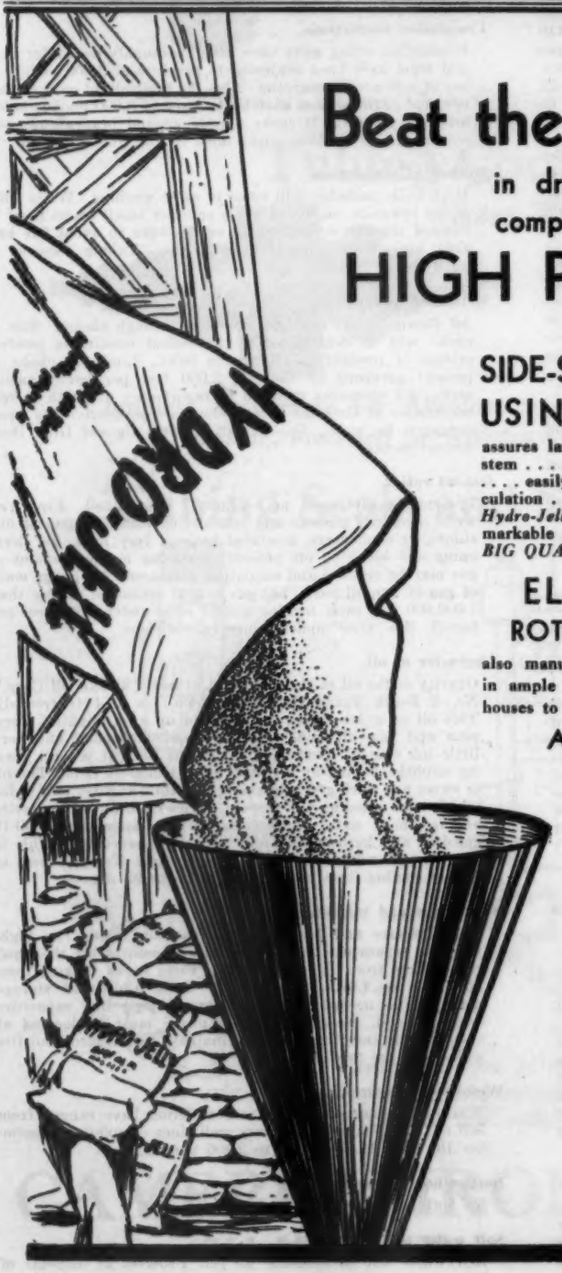

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(Continued from Page 37)

as much as 2 per cent water must be reported to Railroad Commission representatives.

Paraffin.

None.

Cut oil.

None.

Are wells shot?

All sands loose and porous and need no shooting.

Artificial lifting conditions.

Abundance of gas will permit of recycling, adoption of gas lift or pressure maintenance or repressuring methods. All production expected to be deep and central powers probably will not be used and if pumped wells will use the beam. Use of air or gas lift is prohibited, but there is no restriction against repressuring. Special devices or methods for lifting oil may be used in some instances, but permit must be obtained from Railroad Commission representatives, and it must be proved that these devices or methods will not harm the sand.

GENERAL CONDITIONS

Principal lease holders.

Humble Oil & Refining Co. and Strake Oil Corp., G. W. Strake, individually; Heep Oil Corp. and Houston Oil Co., L. M. Josey and Eagle Oil Co., jointly, are largest lease holders in immediate Conroe district. Other holders include D. B. McDaniel and Albert Plummer, Wilson Oil Co., Rowe & Flowers, T. P. Lee, George Bevier, Parsons and others, Falvey & McComb, The Texas Company, Sun Oil Co., Shell Petroleum Corp. and a number of independent operators and lease buyers who hold scattered small tracts. Outside the immediate Conroe area much additional leasing has been done by Humble Oil & Refining, Cullen & West, and numerous independents.

Character of lease blocks.

Except for a 4,368-acre block of South Texas Development Co. held under option by Humble Oil & Refining Co. from Strake Oil Corp. pending exploratory development program, ownership in Conroe district is badly cut up into small tracts. G. W. Strake holds individually approximately 3,600 acres virtually solid but split into many ownerships. This is located adjoining block Humble holds under option. Heep Oil Corp. and allied interests own approximately 1,000 acres in broken blocks.

Townsite possibilities.

Townsite of Conroe located only 3½ miles from present field. Trend of field not determined (June 15) but several tests already started at edge of town and drilling of lots may follow. Emergency order of Railroad Commission provides limit of one well to each town block.

Character of leases.

Majority of leases by independents provide both cash bonus, oil payment and drilling obligations. Small tracts close in held (June 15) for $300 to $500 cash per acre, and a similar amount to be paid out of oil. The trade between Humble Oil & Refining Co. for the 4,368-acre block held under option from Strake Oil Corp. provides payment of $500,000 in cash (in divided payments) with $3,000,000 out of oil, the exercise of the option to be held up pending the drilling of four tests, two by Strake Oil Corp. and two by Humble Oil & Refining Co.

Locations and wells to acre.

All wells so far as possible will be restricted to one well to each 20 acres, spacing of such wells under this restriction providing that no well shall be drilled within 933 feet from any other well, and each well must be at least 466 feet from a property line. In the event of smaller tracts than 20 acres, and in instances where the set spacing cannot be followed, special permit for drilling must be given. All drilling in the townsite must be restricted to one well to each town block. As a precaution against further cutting up of tracts to evade the spacing and acreage drilling restrictions, the Railroad Commission has ruled that the spacing will be governed by the present acreage divisions, as of the date of the order (June 24).

Operating companies, to June 15.

Strake Oil Corp., Heep Oil Corp., Rowe & Flowers, Smith and Daniel, Wilson Oil Co. and Humble Oil & Refining Co. Construction of warehouse and camp has been started by Humble Oil & Refining Co. on a 50-acre site, a mile east of Beach or about 3 miles east of Conroe, on the Cleveland highway.

Salt water.

No salt water evident. Field undeveloped. Disposal of salt water probably will be handled by evaporation pits and drainage to large salt water bodies.

Gas.

Gas production from four wells completed to June 15 estimated 25,000,000 feet daily, first two wells, primarily gassers, accounting for more than 23,000,000 feet daily. Gas from separators of these wells is dry, but one well making 65 bbls. of fluid and the other 40 bbls. daily. Fluid in former almost water white in color and tests 53 gravity, yielding gasoline and kerosene when run through skimming plant. Fluid in second well has slight yellowish color but is lighter gravity. The fluid in these wells is not classed as condensate from the gas. The other two wells produced around 1,000,000 feet of gas each along with approximately 1,000 bbls. of oil each.

Gasoline plants and gas residue.

No gasoline plants constructed. Fluid from gas wells being run to small skimming plant. Present market for gas limited to small towns in vicinity and drilling needs. Houston close but several large trunk lines there provide ample supply from Southwest Texas and Northeast Texas and Louisiana field. Gas is noncorrosive.

Electric line.

Main power line of Gulf States Utilities Co. from Beaumont plant passes through field. Line carries both drilling and pumping load.

Natural hazards.

Gas pressures constitute chief hazards.

Legal angles.

A large amount of land in that district and county has lain idle for many years, it being considered worthless, and titles to much of it may be questionable, affecting operators.

Equipment requirements.

Rigs and equipment from East Texas are being moved into Conroe but it is anticipated much new material will be required.

CONDITIONS IN EAST TEXAS LOWER OUTPUT

(Continued from Page 29)

ation was spent in adjusting the plants to the conditions prevailing in the field, and little relationship of the above mentioned curves can be noted for that period. However, gasoline production varied some with the wet gas processed. The connection of tank batteries to the plant has been progressing, and that, together with the gradual increase in atmospheric temperature from 50° F. to 75° F. has caused an increase in wet gas, gasoline and butane production in March and April in spite of the decreases which have been made in the allowable oil production per well. Butane production has been governed by the demand for that product and it is only in the last few weeks that there has been a market for all of it that could be made. A discussion of the plant products will be made later.

Bad Operating Conditions

Conditions have been very unfavorable for satisfactory operation of gasoline plants in the East Texas Field. However, the operation of the plant equipment has been very satisfactory. With the exception of the usual minor difficulties encountered in starting new installations there has been no trouble experienced with the operation of the equipment of either plant. These minor difficulties have been adjusted and the plants are operating as efficiently as possible under prevailing conditions.

Three different grades of gasoline have been made. Table No. 1 has been prepared in which is tabulated the results of the laboratory tests made on these products and the plant operations during these periods.

Numerous samples of the different gases and liquids have been secured and analyzed for the various hydrocarbons. From these results (Tables 2, 3 and 4) hydrocarbon balances have been made on the different operations of the plant. It can be seen from these balance sheets that the sum total of the components entering any system is equal to the total leaving the system. It is evident that the analyses have been slightly changed to allow the use of whole numbers; however, these changes were within the range of the experimental errors of sampling and laboratory analysis.

TABLE NO. 1

	Product No. 1	Product No. 2	Product No. 3
Gravity, A.P.I.	94.4	88.9	82.9
I.B.P., ° F.	57	65	88
Per cent evaporated at 100° F.	66	52.5	15.5
Per cent evaporated at 140° F.	86	81	74
F.B.P., ° F.	263	235	286
Per cent recovery	90.5	96.0	98
Vapor tension, Reid at 100° F.	27.5	22.6	13.9
Butane, per cent liquid volume	35	23	5.7
PLANT OPERATION:			
Gas handled, M. cu. ft./day	7,700	7,100	7,300
Production:			
Gasoline	17,100	12,150	10,600
Butane	(*)	8,600	14,400
CRUDE OIL PRODUCTION RATE:			
Barrels per day per well	100	75	62
STABILIZER No. 1:			
Bottoms temp., ° F.	265	280	318
Top press., lbs./sq. in. (gauge)	185	200	215

*Butane system not installed.

TABLE NO. 2—PLANT BALANCE—BASIS 7,800,000 CU. FT. PER DAY

	Inlet gas			Raw gasoline			Residue gas			
	% gas volume	M.cu.ft. per day	Gals. per day	% liquid volume	M.cu.ft. per day	Gals. per day	% gas volume	M.cu.ft. per day	Gals. per day	G.P.M.
Methane	46.3	3,611	.....				58.5	3,667	.....	...
Ethane	16.1	1,256	.....	11.4	260	5,300	15.0	940	.....	...
Propane	32.2	1,732	48,790	33.0	545	15,350	18.9	1,187	33,440	...
Butanes	11.0	858	28,600	34.0	474	15,800	6.1	384	12,800	2.04
Pentane and heavier	4.4	343	13,720	21.6	251	10,050	1.5	92	3,670	0.59
Total	100.0	7,800	.....	100.0	1,530	46,500	100.0	6,270	.....	...

TABLE NO. 3—STABILIZER NO. 1—14-LB. REID SPECIFICATION GASOLINE

	Charge		Finished gasoline		Excess reflux		Residue gas	
	% liquid volume	Gals. per day	% liquid volume	Gals. per day	% liquid volume	Gals. per day	% gas volume	Gals. per day
Methane, ethane	11.4	5,300	...	.....	6.3	1,850	62.0	3,450
Propane	33.0	15,350	...	.....	43.4	12,690	32.7	2,660
Butanes	34.0	15,800	5.7	600	50.1	14,670	5.3	530
Pentanes and heavier	21.6	10,050	94.3	10,000	0.2	50	...	.....
Total	100.0	46,500	100.0	10,600	100.0	29,260	100.0	6,640

TABLE NO. 4—STABILIZER NO. 2—BUTANE WITH 5 PER CENT LIMIT

	Charge		Finished butane		Residue gas	
	% liquid volume	Gals. per day	% liquid volume	Gals. per day	% gas volume	Gals. per day
Methane, ethane	6.3	1,850	...	.....	13.4	1,850
Propane	43.4	12,690	1.3	190	85.6	12,500
Butanes	50.1	14,670	98.4	14,620	1.0	50
Pentanes	0.2	50	0.3	50	...	.....
Total	100.0	29,260	100.0	14,860	100.0	14,400

There are five gathering lines which serve the London plant. The daily rate at which gas enters the plant from No. 1 and No. 2 lines varies from zero to a peak of 2,628,000 cubic feet during the day shift; from 809,000 to 2,628,000 cubic feet during the evening shift, and from 784,000 to 2,637,000 cubic feet during the morning shift, but peaks on the other lines compensate partially for the lows. During peak loads, the plants operated at full capacity in an attempt to keep the pressure off the field lines, but these efforts are often unsuccessful. In other periods, practically every engine in the plant is shut down due to a lack of gas. This condition makes it difficult, from the standpoint of gasoline recovery, plant operation, and plant maintenance, to operate as efficiently as would be possible under uniform loads.

The operation of the field, from a gasoline plant standpoint, has been unsatisfactory since proration orders are based on production per well. Efforts to flow wells over a 24-hour period having proved unsuccessful, the most efficient method of operation is intermittent flow. In order to keep from loading the lines too heavily, the leases served by each line have been divided into three areas, one area on each line being flowed during the day shift, another area on the evening shift, and the third area during the morning shift. Pumpers endeavoring to finish their work during the eight-hour shift, flow the majority of their wells during the first few hours. This practice results in the lines being heavily loaded during the first few hours and very lightly loaded during the latter part of each shift. As the lines were designed to handle an evenly distributed load over a period of 24 hours, packing the lines for a short period each shift lowers the G.P.M. of the gas and causes unbalanced load conditions in the plant. This is a very unsatisfactory method of operation but is the best that can be devised as long as proration holds the allowance on a well basis.

STRAKE OIL CORPORATION

G. W. STRAKE, PRESIDENT

2020 GULF BUILDING HOUSTON, TEXAS

East Texas District Reports 161 Completions and 138 New Locations During the Week

By L. E. BREDBERG

DALLAS, Tex., June 27.—There were 161 completions reported for the field this week, and 138 new tests started. One wildcat location was staked. W. C. Hamilton is to drill a test on the Doctor Jones 132-acre tract in the J. D. Hamilton Survey, approximately 4 miles southwest of Summerfield in Cherokee County. Gregg County continues to lead in number of completions and locations, due to its greater amount of proven acreage, and smaller amount of drilling in past months.

Rusk Extension Limit

Sun Oil Co.'s No. 1 Lee in the Peter Tipps Survey, mentioned last week as coring to 3,659 feet and showing but little saturation, is now proven as a small producer extending the oil producing area farther south in Rusk County. It is approximately midway between a good oil producer on the north, and a gasser on the south, and was formerly considered as a possible marker between the gas and oil producing areas of the field, but when it made only 28 bbls. in one hour through open tubing, and pressure dropped from 310 pounds to almost nothing, it was given the rating of a very light well, but an oil producer at that, and a 3,000-foot south extension to the field. The company is now installing a bottom hole choke in an effort to flow the well. If this does not succeed it will probably be put on the pump.

Bottom of the hole is near the water level, minus 3,312 feet thereby putting the well in a precarious situation in regard to salt water encroachment, and although it means an extension of the producing area, it also defines the field in this area. The Stanolind Oil & Gas Co. has a gas well approximately 2,500 feet due south of this potential extension.

More Wells on Pump

More wells are being put on the pump as they are completed each week, the majority on the east edge or Georgetown side of the field. Two more pumpers were completed this week: H. L. Hunt's No. 2-E Daisy Bradford in the Juan Ximenes Survey and Sam K. Vierson's No. 1 Will McCord in the Cadena Survey. The latter is on the extreme eastern side of the field, several locations east of production. Both are in Rusk County.

Faith Oil Co.'s No. 1 Brawley in the J. Crouch Survey, 3,500 feet northwest of the nearest producer, Upshur County, has been put on the pump after failing to make steady flow. Initial production was 67 bbls. the first hour through 1½-inch tubing choke from total depth of 3,753 feet. The well marks an extension in the direction of the small producer of Cranfill & Reynolds on the Rash farm in the Eubanks Survey.

Sun Oil Co.'s No. 7 J. C. Gray was abandoned this week at a total depth of 3,687 feet. It is on the east edge of the Lathrop area in the Sanches Survey, Gregg County. It has producers on three sides, but failed to produce from thin streaks of sand through which it cored.

British-American Oil Co. has thus far failed to shut off water encountered in its No. 1 Stone in the Pru Survey in the heart of the Joiner area, Rusk County, and will continue to plug back until the water is eliminated. This is the first well inside the field to show water.

Cherokee County

C. L. Tubbs and others' No 1 J. H. Sharp in the M. De Los Santos Coy Survey, northeast Cherokee County, is now setting with casing cemented after coring sand from 3,721-22 feet, appearing as a three-quarters-mile southwestern extension to the Joiner Pool. It will probably be drilled in during the next few days giving more details as to what may be expected in this extension area. Carter and others' No. 1 Annie Kelly in the same survey, farther west, cored 1 foot of saturated sand and may be another extension to the pool when it is completed. Casing has also been cemented in this hole, which is now standing shut down waiting for cement to set. With but little sand cored in both wells, they will no doubt prove outposts of the field, limiting production and stopping further drilling to the south and west.

Upshur County

Maddox Development Co.'s No. 1 Willie Starr in the C. H. Cooper Survey, interesting test in Upshur County, is standing with casing cemented at 3,651 feet. It is located approximately 2 miles east of Cranfill & Reynold's small producer and about 3,500 feet north of Faith Oil Co.'s well. It has shown considerable oil on drill stem test, with some water, and is expected to make another small well. Pumping will no doubt have to be resorted to in an effort to produce it.

Fidelity Oil & Royalty Co. sold 140 acres of its M. Bonner lease in the J. McRae Survey on the Gregg-Upshur County line, north of Eslick's No. 1 Whitehurst producer, to the Twin Oil Co. for a consideration of $4,000 per acre out of three-eighths of seven-eighths of the oil. Eight wells will be drilled by the purchaser on this tract.

River Bed Tests

McAllister Coal Co., which acquired subleases on tracts 1, 2, 3, 6 and part of tract 7 of the Sabine River bed from the Rhodes Drilling Co., is about to start tests on these tracts immediately, the tests to offset producing wells outside of the river bed. Tests are to be drilled only on tracts which are tangent to offset producing wells, at least for the time being, the companies holding leases and subleases on the river bed tracts, J. E. Farrell & Co. and Rhodes Drilling Co. not intending to force any drilling along the river.

Shell Petroleum Corp. has again farmed out more of its edge acreage in the field. De Vant and others of Corsicana have obtained lease on the west 150 acres of the F. J. Richards 305-acre tract in the Mary Van Winkle Survey in the Kilgore area, Gregg County, for a one-quarter overriding royalty. The purchasers will drill two more wells on the tract providing their first test is a producer.

Humble Oil & Refining Co., which has also been subletting many of its edge leases, has sold its No. 1 J. T. Jones small lease in the William King Survey and its D. C. Shelton and another small lease in the same survey, Upshur County. The C. T. Shelton 109-acre lease in this survey, on which one well was drilled and abandoned, has been released to the company.

Wildcatting Operations

J. W. Frazier is preparing to start a test in the southwest corner of the Al Hudson 198-acre tract in the M. Rionda Survey, northwest of Palestine in Anderson County, operations to start at once.

Local citizens of Blumberg in Cass County have assembled a block of approximately 7,000 acres south and east of the city limits and are now trying to obtain a drilling contract for the same.

Lee Peyton is working on a block just south of the town of Sulphur Bluff in the northeast corner of Hopkins County and is to drill a test when the block is completed.

Harris Drilling Co. and C. M. Joiner are preparing to start a test on the C. V. Brown land, 9 miles north of the town of Omaha in Morris County. Mr. Brown, a large landowner in the area, gave 33,000 acres of swamp land for the test. Mr. Joiner drilled in the discovery well of the vast East Texas Field, in Rusk County.

Van Zandt County

As a result of several hundred acres of leases being dropped north and northwest of the Van Field, Van Zandt County, after three dry holes were drilled in this part of the field, one a deep test to the Trinity sand, others have become interested in the acreage and may lease part of it to drill several shallow tests, although in some instances Woodbine tests have also been mentioned. One shallow, but small, producer was drilled on the T. J. Luther land in the William Daniel Survey two years ago, but the well was never produced. However, the showings made in this well are the basis of the interest shown in the leases which may be taken up by other small companies or independent operators.

Another test was abandoned in the Van Field this week. This was Pure Oil Co.'s No. 8 Ella York in the John Walling Survey in the northeast part of the field, in what is known as the Carrol district. Total depth was 2,977 feet. Last week the company abandoned its No. 2 Davis in the northern part of the field.

COMPLETIONS IN EAST TEXAS

North Gregg County

Arkansas Fuel Oil Co.'s No. 5 Allison, top sand 3,574 feet, initial production 40 bbls. in one-fourth hour through open tubing, total depth 3,582 feet; No. 3 V. Calvin, top sand 3,515 feet, initial production 38 bbls. in one-fourth hour through open tubing, total depth 3,520 feet; No. 4 Rembert, top sand 3,461 feet, initial production 35 bbls. in one-fourth hour through open tubing, total depth 3,485 feet; No. 2 Stephens, top sand 3,544 feet, initial production 22 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,570 feet; No. 4 L. Y. Tuttle, top sand 3,562 feet, initial production 37 bbls. in one-fourth hour through open tubing, total depth 3,590 feet. Atlantic and Wadley's No. 7 Sander, top sand 3,609 feet, initial production 22 bbls. per hour through three-fourths-inch tubing choke, total depth 3,675 feet. Atlantic Oil & Production Co.'s No. 5 J. Moore, top sand 3,514 feet, initial production 16 bbls. in one-half hour through tapered tubing, total depth 3,541 feet; No. 10 Moyer, top sand 3,556 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,581 feet; No. 4 H. Pritchard, top sand 3,491 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,522 feet; No. 6 H. Pritchard, abandoned. Atlantic and Sun Oil Co.'s No. 5 W. Anderson, top sand 3,466 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,502 feet; No. 10 M. Hays, top sand 3,491 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,532 feet; No. 2 M. Hays, top sand 3,509 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,514 feet.

Clark and Cowden's No. 4 J. M. Christian, top sand 3,620 feet, initial production 68 bbls. in 30 minutes through 2-inch open tubing, total depth 3,677 feet. Empire Gas & Fuel Oil Co.'s No. 6 Bander, top sand 3,564 feet, initial production 38 bbls. in 15 minutes through open tubing, total depth 3,640 feet. Gulf Production Co.'s No. 6 J. H. Bozeman, top sand 3,546 feet, initial production 72 bbls. per hour through three-fourths inch tubing choke, total depth 3,581 feet; No. 10 Sheppard, top sand 3,484 feet, initial production 70 bbls. per hour through three-fourths inch tubing choke, total depth 3,505 feet. Humble Oil & Refining Co.'s No. 5 J. F. Bowles, top sand 3,583 feet, initial production 19 bbls. in 15 minutes through three-fourths inch tubing choke, total depth 3,626 feet; No. 4 Clements, top sand 3,640 feet, initial production 57 bbls. per hour through three-fourths inch tubing choke, total depth 3,682 feet. W. S. Humphreys' No. 1 A. V. Bacle, top sand 3,625 feet, initial production 54 bbls. per hour through three-fourths inch tubing choke, total depth 3,653 feet. B. K. Isaacs, Inc.'s No. 2-A T. B. Harris, top sand 3,513 feet, initial production 25 bbls. in 15 minutes through three-fourths inch tubing choke, total depth 3,526 feet. Lester and Duffield's No. 2 J. C. McKinley, top sand 3,545 feet, initial production 35 bbls. in 40 minutes through open tubing, total depth 3,581 feet.

Magnolia Petroleum Co.'s No. 3 Ritchie, top sand 3,602 feet, initial production 152 bbls. per hour through 2-inch tubing, total depth 3,628 feet. F. W. Merrick, Inc.'s No. 4 W. R. Nicholson, top sand 3,668 feet, initial production 85 bbls. per hour through 2½-inch open tubing, total depth 3,688 feet. Midas Oil Co.'s No. 1 A. V. Bacle, top sand 3,594 feet, initial production 40 bbls. in 30 minutes through 2½-inch open tubing, total depth 3,619 feet. Phillips and Lee's No. 1 R. M. Woods, top sand 3,636 feet, initial production 32 bbls. in 15 minutes through 1-inch tubing choke, total depth 3,643 feet. Roeser and Pendleton's No. 5-A W. R. Nicholson, top sand 3,615 feet, initial production 60 bbls. per hour through 2-inch open tubing, total depth 3,631 feet.

Selby Oil & Gas Co.'s No. 13-B Snavely, top sand 3,575 feet, initial production 33 bbls. in 30 minutes through tapered tubing, total depth 3,586 feet. Selby and Lewis' No. 1-D Snavely heirs, location abandoned. Shell Petroleum Corp.'s No. 3 M. C. Salters, top sand 3,690 feet, initial production 25 bbls. per hour through tapered tubing, total depth 3,709 feet. Showers and Moncrief's No. 2-B Bacle, top sand 3,589 feet, initial production 45 bbls. in 30 minutes through three-fourths inch tubing choke, total depth 3,614 feet. Sinclair Prairie Oil Co.'s No. 7 M. Lawson, top sand 3,497 feet, initial production 51 bbls. in 15 minutes through 2½-inch open tubing, total depth 3,535 feet. Stanolind-Simms-Peachblossom's No. 6 O. J. Albright, top sand 3,529 feet, initial production 52 bbls. in 30 minutes through 1½-inch tubing, total depth 3,634 feet. Stanolind and Simms Oil Co.'s No. 4 P. McGeorge, top sand 3,449 feet, initial production 133 bbls. per hour through 1½-inch tubing choke, total depth 3,512 feet; No. 7-A J. J. Flewellen, top sand 3,670 feet, initial production 108 bbls. per hour through 1½-inch tubing choke, total depth 3,686 feet. Stroube and Stroube's No. 3 Bumpass, top sand 3,439 feet, initial production 40 bbls. in 30 minutes through three-fourths inch tubing choke, total depth 3,486 feet. Sun Oil Co.'s No.

9 Akins, top sand 3,534 feet, initial production 54 bbls. per hour through tapered tubing, total depth 3,614 feet; No. 2 I. D. Sparks, top sand 3,595 feet, initial production 36 bbls. per hour through tapered tubing, total depth 3,637 feet.

The Texas Company's No. 3 Phillips, top sand 3,600 feet, initial production 60 bbls. per hour through one-half inch tubing choke, total depth 3,705 feet, 35 per cent salt water. Tidal Oil Co.'s No. 4 J. J. Castleberry, top sand 3,613 feet, initial production 60 bbls. per hour through 2-inch tubing, total depth 3,639 feet; No. 7 W. E. Jones, top sand 3,630 feet, initial production 26 bbls. in 10 minutes through 2-inch open tubing, total depth 3,646 feet; No. 9 Lake Devernia, top sand 3,490 feet, initial production 26 bbls. in 10 minutes through 2-inch open tubing, total depth 3,540 feet; No. 12 Lake Devernia, top sand 3,505 feet, initial production 22 bbls. in 10 minutes through 2-inch open tubing, total depth 3,549 feet; No. 4 B. Moore, top sand 3,494 feet, initial production 24 bbls. in 10 minutes through 2-inch open tubing, total depth 3,536 feet. Yount-Lee Oil Co.'s No. 5 F. Jones, top sand 3,579 feet, initial production 91 bbls. per hour through eleven-sixteenths inch tubing choke, total depth 3,599 feet; No. 4 Thrasher-Stuckey, top sand 3,580 feet, initial production 70 bbls. per hour through eleven-sixteenths inch tubing choke, total depth 3,600 feet.

South Gregg County

A. B. C. Oil Co.'s No. 3 McNeely, top sand 3,637 feet, initial production 30 bbls. in 20 minutes through 1-inch tubing choke, total depth 3,641 feet. E. & F. Oil Co.'s No. 1 Williams, top sand 3,656 feet, initial production 50 bbls. in one-half hour through 1-inch tubing choke, total depth 3,675 feet. Empire Gas & Fuel Oil Co.'s No. 3 Muckelroy, top sand 3,635 feet, initial production 40 bbls. in one-fourth hour through 1½-inch tubing choke, total depth 3,590 feet. R. D. Farish's No. 1 M. C. Barton, top sand 3,523 feet, initial production 30 bbls. in one-fourth hour through seven-eighths-inch tubing choke, total depth 3,547 feet. Gulf Production Co.'s No. 7 M. Charles, top sand 3,575 feet, initial production 82 bbls. per hour through three-fourths-inch tubing choke, total depth 3,586 feet; No. 4 T. C. Reeves, top sand 3,560 feet, initial production 92 bbls. per hour through three-fourths-inch tubing choke on 2-inch tubing, total depth 3,572 feet.

Harry H. Holden's No. 2 Register, top sand 3,656 feet, initial production 54 bbls. per day pinched, total depth 3,659 feet. Humble Oil & Refining Co.'s No. 9 Dora Thomas, top sand 3,544 feet, initial production 32 bbls. in one-half hour through three-fourths-inch tubing choke, total depth 3,610 feet. T. D. Humphrey's No. 7 A. Spear, top sand 3,535 feet, initial production 51 bbls. per day pinched, total depth 3,590 feet. Hunter and Rowe's No. 2 J. B. Watson, top sand 3,576 feet, initial production 50 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,635 feet. T. A. Johnson's No. 1-B M. T. Cole, top sand 3,514 feet, initial production 85 bbls. in one-half hour through 2-inch choke on 2½-inch tubing, total depth 3,545 feet. Koberg Oil Co.'s No. 2 L. Martin, top sand 3,675 feet, initial production 30 bbls. in one-fourth hour through open tubing, total depth 3,678 feet.

Magnolia Petroleum Co.'s No. 6 H. Hicks, top sand 3,683 feet, initial production 112 bbls. per hour through 1-inch tubing choke, total depth 3,686 feet; No. 7 A. Hicks, top sand 3,643 feet, initial production 108 bbls. per hour through 1-inch tubing choke, total depth 3,644 feet; No. 1 R. H. Rowland, top sand 3,544 feet, initial production 23 bbls. in five minutes through 1-inch choke on 2-inch tubing and 4-inch on casing, total depth 3,583 feet. Central Drilling Co.'s No. 1 Willie Smith, top sand 3,547 feet, initial production 70 bbls. in one-half hour through three-fourths-inch tubing choke on 2-inch tubing, total depth 3,560 feet. Bert Kunn's No. 1 Hughey-Ross, top sand 3,523 feet, initial production 86 bbls. per hour through 1-inch tubing choke on 2-inch tubing, total depth 3,557 feet. J. S. Rushing's No. 3 J. M. Dickson, top sand 3,562 feet, initial production 75 bbls. per hour through three-fourths-inch tubing choke, total depth 3,597 feet.

Shell Petroleum Corp.'s No. 2 H. T. Elder & Son, top sand 3,509 feet, initial production 7 bbls. in one-fourth hour through tapered tubing, total depth 3,568 feet; No. 3 W. D. Lacy, top sand 3,565 feet, initial production 12 bbls. in one-half hour through tapered tubing, total depth 3,569 feet; No. 4 W. D. Lacy, top sand 3,564 feet, initial production 13 bbls. in one-half hour through tapered tubing, total depth 3,569 feet. Sinclair Prairie Oil Co.'s No. 9 S. G. Andrews, top sand 3,429 feet, initial production 50 bbls. in one-half hour through open tubing, total depth 3,502 feet; No. 10 S. G. Andrews, top sand 3,433 feet, initial production 50 bbls. in one-half hour through open tubing, total depth 3,500 feet; No. 23-A A. A. King, top sand 3,469 feet, initial production 30 bbls. in 15 minutes through open tubing, total depth 3,500 feet; No. 6-B A. A. King, top sand 3,415 feet, initial production 40 bbls. in one-fourth hour through 1½-inch tubing choke, total depth 3,448 feet; No. 5 Joe E. Lawther, top sand 3,561 feet, initial production 35 bbls. in one-fourth hour through open tubing, total depth 3,600 feet; No. 8 A. A. Lockhart, top sand 3,668 feet, initial production 35 bbls. in one-fourth hour through open tubing, total depth 3,678 feet. Sun Oil Co.'s No. 3 C. Brown, top sand 3,617 feet, initial production 58 bbls. per hour through tapered tubing, total depth 3,670 feet; No. 8 M. T. Cole, top sand 3,522 feet, initial production 55 bbls. per hour through tapered tubing, total depth 3,555 feet; No. 4 J. S. Elder, top sand 3,522 feet, initial production 49 bbls. per hour through tapered tubing, total depth 3,562 feet; No. 6 Grant Reese, top sand 3,711 feet, initial production 58 bbls. per hour through tapered tubing, total depth 3,723 feet; No. 3 M. Strong, top sand 3,619 feet, initial production 78 bbls. per hour through 2½-inch tubing choke, total depth 3,650 feet.

Tidal Oil Co.'s No. 10 Barton, top sand 3,554 feet, initial production 300 bbls. per hour through open tubing, total depth 3,570 feet; No. 6 Hughey-Ross, top sand 3,512 feet, initial production 300 bbls. per hour through open tubing, total depth 3,550 feet; No. 12 Hughey-Ross, top sand 3,495 feet, initial production 144 bbls. per hour through open tubing, total depth 3,532 feet. Travis and Kroll's No. 1 K. P. Lodge Lot, top sand 3,546 feet, initial production 65 bbls. per hour through 1-inch tubing choke, total depth 3,566 feet. W. V. Turnbow's No. 1 Heard, top sand 3,532 feet, initial production 25 bbls. per hour through three-sixteenths-inch tubing choke on 2-inch tubing, total depth 3,585 ft. Wallace and O'Neil's No. 2 E. L. Walker, top sand 3,549 feet, initial production 51 bbls. per day pinched, total depth 3,554 feet. Weaver-Crim's No. 3 Peterson, top sand 3,605 feet, initial production 164 bbls. per hour through open tubing, total depth 3,640 feet.

North Rusk County

Beard and Harmon's No. 2 H. Alexandria, top sand 3,623 feet, initial production 50 bbls. per hour through one-half-inch tubing choke, total depth 3,637 feet. Brown and Wilson's No. 2 M. R. Terrell, top sand 3,664 feet, initial production 35 bbls. per hour through open tubing, total depth 3,672 feet. Gulf Production Co.'s No. 7 C. E. Christian, top sand 3,724 feet, initial production 78 bbls. per hour through three-quarters-inch tubing choke, total depth 3,739 feet; No. 8 R. M. Christian, top sand 3,610 feet, initial production 72 bbls. per hour through three-quarters-inch tubing choke, total depth 3,634 feet. Humble Oil & Refining Co.'s No. 52 L. D. Crim, top sand 3,640 feet, initial production 53 bbls. per hour through three-quarters-inch tubing choke, total depth 3,634 feet; No. 3 V. E. Reid, top sand 3,588 feet, initial production 20 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,713 feet.

E. M. Jones and Houston Oil Co.'s No. 4 D. Wills, top sand 3,602 feet, initial production 60 bbls. per hour through five-sixteenths-inch tubing choke, total depth 3,613 feet. Olson Brothers and Johnson's No. 6 J. S. Powers, top sand 3,717 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,721 feet. Pace Petroleum Co.'s No. 1 Wills, top sand 3,683 feet, initial production 85 bbls. per hour through 1-inch tubing choke, total depth 3,686 feet. Republic Production Co.'s No. 4 M. P. Leverett, top sand 3,747 feet, initial production 30 bbls. in 10 minutes through 1½-inch tubing choke, total depth 3,761 feet.

Shell Petroleum Corp.'s No. 10 W. P. Moore, top sand 3,670 feet, initial production 15 bbls. in one-half hour through tapered tubing, total depth 3,670 feet; No. 18 Watson, top sand 3,600 feet, initial production 12 bbls. in one-half hour through tapered tubing, total depth 3,678 feet. Max Rubin's No. 1 A. Holt, top sand 3,614 feet, initial production 12½ bbls. in one-half hour through 2-inch tubing, total depth 3,740 feet. Stanolind Oil & Gas Co.'s No. 3 Rena Christian, top sand 3,685 feet, initial production 33 bbls. in one-quarter hour through 1½-inch tubing choke, total depth 3,687 feet. Tidal Oil Co.'s No. 2-B Buntyn, top sand 2,648 feet, initial production 105 bbls. per hour through open tubing, total depth 3,677 feet. Woodley Petroleum Co.'s No. 4-A Joe Ladd, top sand 3,594 feet, initial production 35 bbls. in one-quarter hour through five-sixteenths-inch tubing choke, total depth 3,609 feet.

South Rusk County

Butler and Calhoun's No. 1 W. P. Brett, top sand 3,670 feet, initial production 60 bbls. in one-half hour through open 2½-inch tubing, total depth 3,705 feet. Chaplin and Bass' No. 2 R. G. Mason, top sand 3,595 feet, initial production 6 bbls. in one-quarter hour through open tubing, total depth 3,610 feet. M. H. Corbin and others' No. 1 E. B. Alford, top sand 3,554 feet, initial production 48 bbls. per hour through open 2-inch tubing, total depth 3,610 feet. Deep Rock Oil Co.'s No. 10 Stovall, dry and abandoned, total depth 3,562 feet. Fair and Thompson's No. 1 Wiley Freeman, top sand 3,594 feet, initial production 50 bbls. per hour through open 2-inch tubing on three-quarters-inch bottom hole choke, total depth 3,594 feet. Gulf Production Co.'s No. 5-D Mayfield, top sand 3,598 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,607 feet. Henson Oil Co.'s No. 3 R. A. Motley, top sand 3,780 feet, initial production 80 bbls. in one-half hour through open tubing, total depth 3,784 feet.

Humble Oil & Refining Co.'s No. 7 P. R. Geurin, top sand 3,714 feet, initial production 43 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,758 feet; No. 4-B Ida Holt, top sand 3,759 feet, initial production 43 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,802 feet; No. 3 D. C. Joyner, top sand 3,695 feet, initial production 48 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,700 feet; No. 4-B J. H. Silvey, top sand 3,666 feet, initial production 51 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,686 feet; No. 5-A Virginia Turner, top sand 3,700 feet, initial production 49 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,720 feet. H. L. Hunt's No. 2-E Daisy Bradford, top sand 3,517 feet, initial production 50 bbls. in five hours' pumping, total depth 3,643 feet; No. 2 M. L. Thompson, top sand 3,712 feet, initial production 37 bbls. in one-quarter hour through open 2-inch tubing, total depth 3,765 feet. Hunt Production Co.'s No. 2-A Smith Wilson, top sand 3,717 feet, initial productioin 33 bbls. in one-quarter hour through open 2-inch tubing, total depth 3,735 feet. Jackson-Wise and Snowden's No. 2 Stewart, top sand 3,720 feet, initial production 20 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,721 feet. Johnson and others' No. 3 Mullins, top sand 3,763 feet, initial production 75 bbls. in one-half hour through 2½-inch tubing, total depth 3,785 feet.

Mid-Kansas Oil & Gas Co.'s No. 3 H. C. Burton, top sand 3,657 feet, initial production 96 bbls. per hour through open 2½-inch tubing on 2-inch lead, total depth 3,702 feet; No. 4 H. C. and G. W. Burton, top sand 3,611 feet, initial production 108 bbls. per hour through open 2½-inch tubing on 2-inch lead, total depth 3,655 feet; No. 2 Jim Lunsford, top sand 3,633 feet, initial production 27 bbls. in one-quarter hour through 2½-inch tubing, total depth 3,695 feet. Pansy Oil Co.'s No. 1 J. R. Glover, top sand 3,575 feet, initial production 40 bbls. per hour through open 2-inch tubing, total depth 3,645 feet. L. H. Pritchard's No. 1 Finney, top sand 3,670 feet, initial produc-

(Continued on Page 45)

East Central Texas Wildcats

Week Ending June 27

ANDERSON COUNTY

Company, well, farm name, section and block— Remarks:

Rosser and Pendleton's No. 1 M. A. Davy, 660 ft. from N line and center of E and W lines of tract and survey, P. G. Adams Sur. ..... Derrick.

C. R. Wilmuth et al's No. 1 N. B. Watson, 500 ft. from W line and 4,850 ft. from N of S line of survey in 8⅛ of 139-ac. tract, M. Main Sur. ..... T.D. 1,528 ft.

ANGELINA COUNTY

French et al's No. 1 Abney, 150 ft. from S line and 300 ft. from W line of lease, Antasio Barsta Sur. ..... Drlg. 1,220 ft.

BOWIE COUNTY

Burnham-Robertson and Greer's No. 1 F. O. Weiss, 850 ft. from N line and 200 ft. from W line of B. H. Williams 50-ac. tract, Jessie Dean Sur. ..... T.D. 3,305 ft.; reaming at 3,150 ft.

Lee Timberlake's No. 1 C. E. McElwee, 350 ft. from S line and 450 ft. from W line of 160-ac. tract, M. A. Poor Sur. ..... Dry and abnd. 3,450 ft.

CHEROKEE COUNTY

Bridges and Candler's No. 1 Berryman, center of Berryman tract, H. Kimble Sur. ..... S.D. 1,000 ft.

T. J. Carter et al's No. 1 Annie Kelley, 1,714 ft. S and 330 ft. W of NW cor. of Pilot Oil Co.'s Kelley 10-ac. lease, M. De Los Santos Coy Sur. ..... Set csg.; top sand 3,762 ft.

W. C. Hamilton et al's No. 1 Doctor Jones, 150 ft. from N line and 1,000 ft. from E line of 132-ac. lease, 4 miles SE of Summerfield, J. D. Hamilton Sur. ..... Location.

Mid-Kansas Oil & Gas Co.'s No. 2 H. D. Kelley, 330 ft. from S line and 1,315 ft. from E line of 36.3-ac. tract, M. De Los Santos Coy Sur. ..... Derrick.

Pilot Oil Co.'s No. 1 Annie Kelley, center of 10-ac. lease, M. De Los Santos Coy Sur. ..... Drlg. 3,040 ft.

Rayburn and Glassco's No. 1 Annie Kelley, 1,714 ft. S and 2,310 ft. W of NW cor. of Pilot Oil Co.'s Kelley 10-ac. lease, M. De Los Santos Coy Sur. ..... Derrick.

William A. Stone's No. 1 J. T. Perkins, 200 ft. from NW cor. of lease, Thomas Stanford Sur., 8 miles S of Ponta ..... Drlg. 2,700 ft.

Dr. Tubbs et al's No. 1 J. H. Sharp, 330 ft. from N line and 71 ft. from E and W lines of 3⅛-ac. tract, M. De Los Santos Coy Sur. ..... Top sand 3,721 ft.; T.D. 3,725 ft.

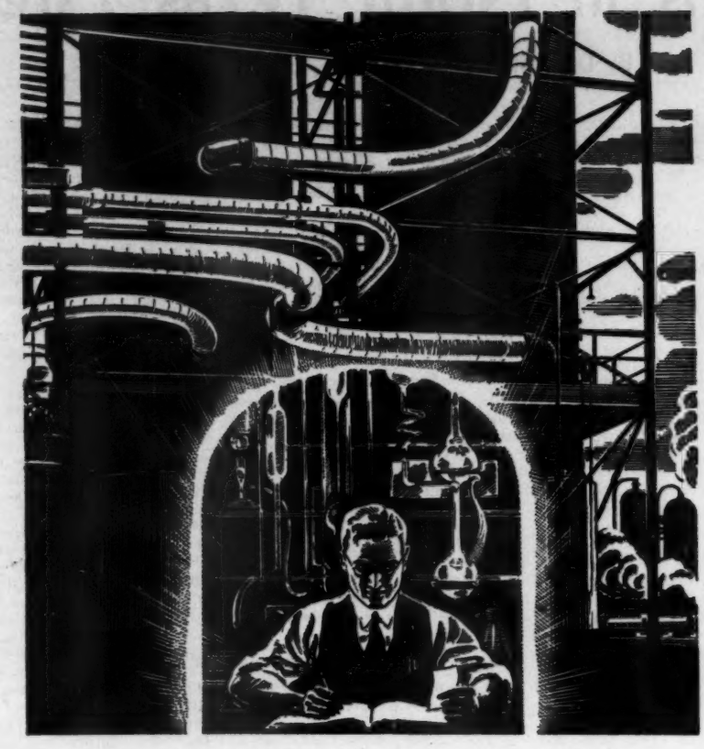
Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur. ..... S.D. 1,650 ft.

DELTA COUNTY

Commerce Oil Co.'s No. 1 Ablowich, 150 ft. from S line and 776 ft. from W line of H. D. Jewett 52-ac. tract, E. Chick Sur. ..... S.D. 3,733 ft.

Joiner et al's No. 1 Blackwell, 800 ft. S and 150 ft. from E lines of 275-ac. tract, Dunneteile Sur. ..... S.D. 2,270 ft.

(Continued on Page 47)



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Wildcatting Increasing in West Texas District
Fifty Locations in North Texas Areas

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., June 27.—West Texas continues to gain in wildcatting activities, the district having snapped out of its previous dormant state about three months ago when several wildcat locations were staked in various parts of the district, all of them in interesting areas, and several other interesting locations have been staked just recently. Several of the proposed tests brought on large lease and royalty purchases, especially the Ordovician test now drilling in Crockett County, major companies making their first large lease purchases in the district for over 2½ years.

Another wildcat location has been staked in Ector County, Broderick and Calvert of Fort Worth proposing to drill a 4,500-foot test in Section 15, Block 44, Township 2s, T.&P. Survey, approximately 7 miles north and east of the Penu Pool. Section 15 lies under the Parker ranch.

Irion County

A machine has also been moved in for a shallow test in Section 691, H. Cooper Survey, Irion County. Straughn and Adkins will drill this test, on the J. Kiner lands, 1,320 feet from the north and 1,000 feet from the west lines of the section.

A Diesel engine has been moved in on Stanolind Oil & Gas Co.'s No. 1 Williams, deep test in Irion County, and work will be resumed on this test at once. Drill pipe will have to be fished out before drilling can be started, however. A long shut down was occasioned in this test when a fire on the drill floor damaged machinery which had to be repaired, and other machinery obtained. Total depth is 7,420 feet.

Gaines County

McElreath and Sugget and others' interesting test in Section 397, Block G, C.C.S.D.&R.G.N.G. Survey, Gaines County, is ready to resume drilling after installing rotary. Quicksand in the hole caused the operators to switch to rotary equipment which will probably be used to around 4,200 feet where the big lime is expected.

Garza County

M. L. Edwards is also preparing to drill a wildcat test in Garza County, on the W. E. Connell and Sons lands in Section 30, Block 5, G.H.&H. Survey, approximately 1 mile west of the town of Augusta in the central part of the county, and 1 mile south of a dry hole drilled by the Pandem Oil Co. in Section 31, and one-half mile southwest of the same company's dry hole in Section 32.

Scurry County

Seifert and Dibble have made location for No. 1 Carruthers in Section 121, Block 97, H.&T.C. Survey, in the south central part of Scurry County, 1 mile northwest of a small producer. The same operators are now drilling in Section 153, Block 97, H.&T.C. Survey, below 4,900 feet.

Southern Ward County

Another good producer has been added to the Weiss area in southern Ward County where the Eastland Oil Co. just completed the largest producer yet brought in in this part of the county. It made 307 bbls. at a total depth of 2,365 feet. The new well is owned by the Texas Pacific Coal & Oil Co. and is in Section 5, Block 34, H.&T.C. Survey, adjacent to the section in which the Eastland well is located. The second big producer flowed 300 bbls. the first 12 hours with tools in the hole, total depth 2,320 feet. The first gas and oil increase was logged at 2,278-80 feet, and another increase in oil was struck at 2,318 feet. An estimated 3,000,000 feet of gas was struck at the first increase in gas. This second large well is still better than the former record holder of the area, and will probably make around 600 bbls. when tools are pulled from the hole, and a 24-hour test made.

Andrews County

A leaky joint of 6⅝-inch casing was found at around 3,000 feet in the Fuhrman Petroleum Co.'s No. 1 Boner in Section 24, Block A-43, Andrews County, when the Halliburton Oil Well Cementing Co. ran a test plug at 3,100 feet. One hundred sacks of cement have been set to shut off the water, and it will be about a week before the plug is drilled and a test made. This well was recently completed for better than 200 bbls., but was making some water, which was found to be coming from the aforementioned leaky joint.

Mineral resources pay a vast amount of revenue in several of the West Texas counties, the Howard County oil and gas production amounting to 47 cents of every dollar of county, state and district school taxes paid in Howard County this year, ample proof of what oil and gas production means to the State of Texas. There are many other larger pools in several of the counties of the State, consequently more revenue will be derived from oil and gas taxes in which those pools are located. The Yates Pool, Pecos County, Winkler County Pool and Big Lake Pool in Reagan County will pay even more than the Howard County area, in oil and gas taxes, for those pools are all larger than the latter area.

Seven Completions

There were seven completions in the district during the week, Howard County having two producers, Pecos County one, Upton County one and Ward County three. Two of the producers in Ward County were in the O'Brien area in the northern part of the county, and the other was in the southern part of the county.

Deep Test in Crockett

P. O. Sill, contractor, is erecting a derrick on Stanolind Oil & Gas Co. and others' No. 1 Williams deep test in north central Crockett County, and the Noble Drilling Co. of Tulsa, which has contract for drilling the well, is moving in heavy rotary equipment. Six-inch drill pipe will be used. A 4-inch gas line has been laid from the Stanolind Oil & Gas Co. and Mid-Kansas Oil & Gas Co.'s 18,000,000-foot gasser in Section 43 to the deep test, and gas is to be taken from the shallow gas producer for fuel for drilling the latter test.

RANGER AND WICHITA FALLS

There were approximately 50 locations staked in the Ranger and Wichita Falls districts during the week, but only four of these reported in the former district, the latter district being the most active. There were seven completions reported for the Ranger district, but one well, the Texas Pacific Coal & Oil Co.'s No. 1 Fee in the Durocher Survey, 5 miles southeast of Ranger, Eastland County, was an important well for the district as it extended production a short distance, and is located on a large block of acreage, most of which is owned by the company in fee. The well is estimated good for 100 bbls. flowing after a 90-quart shot. Sand was logged at 2,970-97 feet, and the hole bottomed at 3,000 feet. There are five wells in the area making 300 bbls. per day, and this new well will boost the production considerably for the small area.

Archer County, which has been the most active county in the Wichita Falls district for several months, especially since production was found in the Canyon series in the Chalk Hill Pool, and several shallow strikes were made in various parts of the county, bids fair to have another shallow pool opened in the central part of the county. A. Z. Kouri and others, who intended drilling to the Canyon pay horizon, encountered 3 bbls. of oil per hour in their No. 1 J. P. Montgomery, 2 miles northwest of Archer City and 1½ miles east of the Thomas Pool, the oil coming from a shallow sand logged from 1,120-24 feet. Casing is now cemented, and outcome of the test will not be known until the plug is drilled, but it is considered as positive of making a small producer at least, thereby opening another area for the county. It is in Section 133 of the J. W. Harris Subdivision. Elevation of the test is 976 feet.

Young County

Ossie Bratcher, the King Royalty Co. and others have completed their No. 1 C. L. Lowe in Lot 15, Section 3,412, east central Young County, for an initial production of 87 bbls. with 5,000,000 feet of gas. The King Royalty Co. will lay 8 miles of 6-inch gas line from this well to the shallow Loving Field to serve that area with gas for repressuring purposes.

The Texas Company drilled a dry hole in the Perkins-Cullum area, Archer County, this week, abandoning its No. 1 Abercrombie at a total depth of 1,507 feet. This is a small, shallow producing area opened just a few weeks ago, and nothing but small wells have been completed in the area.

Pilot Point Producer

The Danciger Oil & Refining Co. and others completed a nice well in the Pilot Point Pool in southeastern Cooke County this week when their No. 4 C. Jacobs came in for an initial production of 124 bbls. in 24 hours on the pump, showing no water. The Pilot Point Refining Co., which is to refine the 24 gravity oil from this pool, is to have its 500-bbl. refinery at Pilot Point ready for operation in 15 days.

Haskell and Stonewall

A. S. Everett, vice president of the Exploration Co., San Angelo, is working up a 30,000-acre block in west central Haskell County and east central Stonewall County. A 4,000-foot cable tool test is to be started within four months after completion of the block, which may be drilled on a unit basis.

PANHANDLE DISTRICT

There were six locations staked in the Panhandle district this week, and three completions reported, the latter all in Gray County.

Magnolia Petroleum Co.'s No. 1 Wilson, a deep wildcat test in Section 73, H. Kelly Survey, Parmer County, is now preparing to plug after drilling to 5,830

Wildcat Operations in West Texas

Week Ending June 27

Company, well, farm name, section and block—	Remarks—
BORDEN COUNTY	
Westyde Investment Co.'s No. 1 Looney, 990 ft. from S and E, Sec. 15, Blk. 31, Twp. 4n, T.&P. Sur.	Drlg. 250 ft.
BREWSTER COUNTY	
Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F. Sur.	S.D. 1,935 ft.
E. L. Chapman's No. 1 Skinner, C SW SE Sec. 100, Blk. 2, G.C.&S.F. Sur.	S.D. 1,302 ft.
Joiner's No. 1 McIntire, 853 ft. from S and 2,390 ft. from E, Sec. 31, Blk. 352, W. J. Mitchell Sur.	Rig.
Trans-Pecos Oil & Gas Co.'s No. 1 Jones, 990 ft. from N and 2,500 ft. from E of Sec. 18, Blk. G-15, G.C.& S.F. Sur.	S.D. 2,900 ft.
Van McPhail's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 miles south Alpine	S.D. 1,750 ft.
CONCHO COUNTY	
Beesley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 163, T.&N.O. Sur.	S.D. 1,700 ft.
CRANE COUNTY	
Continental Oil Co.'s No. 1-D Cowden, 200 ft. from S and 2,492 ft. from E Sec. 18, Blk. X	T.D. 2,482 ft.; S.D. for proration gauge.
CROCKETT COUNTY	
California Co.'s No. 1 O'Byrne, 2,310 ft. from S and 1,650 ft. from E, Sec. 23, Blk. 33, Twp. 2s, T.&P. Sur.	Rigging up.
Doleman & Moore's No. 1 Ferner, 2,135 ft. from N and 1,485 ft. from E of Sec. 36, Blk. 2, I.&G.N. Sur.	Spudded and S D.
Stanolind Oil & Gas Co. et al's No. 1 Todd, 1,370 ft. from N and 1,320 ft. from E, Sec. 67, Blk. UV, G.C.&S.F. Sur.	Drlg. 125 ft.
The Texas Company's No. 1 B. B. Ingham, 330 ft. from S and 2,230 ft. from E line, Sec. 36½, I.&G.N. Sur.	Drlg. 150 ft.
COKE COUNTY	
Mid-Kansas Oil & Gas Co.'s No. 1 Hearn, 980 ft. from S and W, Sec. 271, Blk. 1-A, H.&T.C. Sur.	Drlg. 2,425 ft.
DAWSON COUNTY	
Albaugh et al's No. 1 Robinson, C NW Sec. 46, Blk. M, E.L.&R.R Sur.	To resume drilling.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 38, Blk. 43, Twp. 2s, T.&P. Sur.	Drlg. 3,075 ft.
H. F. Wurts' No. 1 E. A. Ibbetson et al, 330 ft. from N and E lines of NW Sec. 16, Blk. 46, Twp. 2s, G. M. M.Br.&A. Sur.	S.D. 3,605 ft.
EL PASO COUNTY	
Tri-State Oil Co.'s No. 1 Bobadella, 1,325 ft. from S and E lines Sur. 254, S.F. No. 7,247	S.D. 2,600 ft.
FISHER COUNTY	
Condor Petroleum Co.'s No. 1 Steele, 660 ft. from S and 330 ft. from W of W half of SE Sec. 210, B.B.B.&C. Ry. Sur.	T.D. 2,922 ft.; 1 small head in 22 hrs.
Cranfill & Reynolds' No. 1 George, 400 ft. from N and 330 ft. from E. Sec. 200, Blk. 1, B.B.B.&C. Sur.	Drlg. 5,600 ft.
Sinclair-Prairie's No. 2 Steele, 250 ft. from N and W of NE Sec. 72, H.T.&B. Sur.	Drlg. 2,910 ft.

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feet. This has been an interesting test due to the fact that it was located on a large block held by the company, in the neighborhood of 30,000 acres, and was one of the deepest tests ever drilled in the district, yielding considerable geologic information which will no doubt be useful in future correlations of other deep tests in the district.

COMPLETIONS IN WEST TEXAS DISTRICT

Howard County

Harrison and others' No. 2 Denman, top pay 2,565 feet, shot 300 quarts 2,719-2,830 feet, initial production 101 bbls. pumping, total depth 2,850 feet. Merrick-Lamb's No. 3 Chalk, top pay 1,702 feet, initial production 168 bbls. pumping, total depth 1,770 feet.

Pecos County

Cardinal Oil Co.'s No. 11-E Tippett, top pay 445 feet, initial production 105 bbls., total depth 475 feet.

Upton County

Gulf Production Co.'s No. 97 McElroy, top pay 2,780 feet, total depth 2,980 feet, plugged back to 2,873 feet, shot 300 quarts 2,775-2,867 feet, initial production 160 bbls.

Ward County

Eastland Oil Co.'s No. 1 Weiss, top pay 2,323 feet, initial production 307 bbls., total depth 2,365 feet. Eppenauer Drilling Co.'s No. 1 Townsend-Moore, location abandoned. Richardson and others' No. 9 O'Brien, top pay 2,522 feet, initial production 90 bbls., total depth 2,795 feet; No. 8 O'Brien, top pay 2,675 feet, shot 170 quarts from 2,630-2,765 feet, initial production 140 bbls., total depth 2,793 feet.

COMPLETIONS IN PANHANDLE DISTRICT

Gray County

Danciger Oil & Refining Co.'s No. 2 Williams, top pay 2,724 feet, initial production 720 bbls. on gas lift, total depth 2,733 feet. Harry Foster's No. 1 Webb, top pay 2,630 feet, initial production 480 bbls., total depth 2,632 feet. Mid-Kansas Oil & Gas Co.'s No. 1 Webb, top pay 2,955 feet, shot 120 quarts 2,458-95 feet, initial production 240 bbls. in 24 hours swabbing, total depth 2,505 feet. Operators Royalty & Production Co.'s No. 2 Ralph Arnold, abandoned location. Southern States Gas Co.'s No. 1 Case, abandoned location. The Texas Company's No. 8 Brown (old well deepened), old total depth 3,080 feet, new total depth 3,142 feet, increase in oil at 3,118-35 feet, initial production 350 bbls. on pump.

Hutchinson County

Combination Oil & Gas Co. and Alspaugh's No. 1 Johnson, top pay 2,950 feet, initial production 576 bbls. swabbing, total depth 3,050 feet.

Moore County

Dana Oil & Gas Co.'s No. 1 Robertson and others, abandoned location.

East Texas Fields

(Continued from Page 42)

tion 43 bbls. per hour through open 2½-inch tubing, total depth 3,750 feet.

Sinclair Prairie Oil Co.'s No. 1 J. W. Fletcher, top sand 3,661 feet, initial production 5,000,000 feet of gas, total depth 3,704 feet; No. 5 Kersh, top sand 3,641 feet, initial production 30 bbls. in one-quarter hour through open 2½-inch tubing, total depth 3,647 feet; No. 9 D. Ledbetter, top sand 3,630 feet, initial production 35 bbls. in one-quarter hour through open 2½-inch tubing, total depth 3,664 feet; No. 4 Peter Tipps, top sand 3,644 feet, initial production 51 bbls. in 20 minutes through open 2½-inch tubing, total depth 3,656 feet. Snyder and Timberlake's No. 1 J. H. Stewart, top sand 3,706 feet, initial production 50 bbls. in one-half hour through open 2-inch tubing, total depth 3,710 feet. Stanolind Oil & Gas Co.'s No. 4-B Schuler, top sand 3,612 feet, initial production 16½ bbls. in one-quarter hour through open tubing, total depth 3,683 feet. Stanolind and Pure Oil Co.'s No. 6 R. J. Burton, top sand 3,603 feet, initial production 40 bbls. in one-quarter hour through 1½-inch tubing choke, total depth 3,671 feet; No. 10 R. A. Moores, top sand 3,620 feet, initial production 22½ bbls. in 10 minutes through 1½-inch tubing choke, total depth 3,624 feet. Stroube-Collins and Wheelock's No. 2 Pinkston, top sand 3,644 feet, initial production 62 bbls. per hour through open 2-inch tubing, total depth 3,658 feet. Sun Oil Co.'s No. 2 Ellen Till, top sand 3,626 feet, initial production 25 bbls. per hour through open 2-inch tubing, total depth 3,729 feet.

The Texas Company's No. 4 J. M. Price, top sand 3,565 feet, initial production 70 bbls. per hour through open 2-inch tubing, total depth 3,604 feet. Tex-Jersey Oil Co.'s No. 2 Cora Hannah, top sand 3,612 feet, initial production 40 bbls. in one-fourth hour through open tubing, total depth 3,634 feet. Sam K. Vierson's No. 1 Will McCord, top sand 3,560 feet, initial production 51 bbls. in three hours pumping through 2-inch tubing, total depth 3,644 feet. Willard Oil Co.'s No. 2 J. R. Alford, top sand 3,608 feet, initial production 50 bbls. per hour through open tubing, total depth 3,690 feet.

Smith County

C. B. Bunte and Droppleman's No. 1-A Jarvis, top sand 3,739 feet, initial production 20 bbls. per hour through three-fourths-inch tubing choke, total depth 3,741 feet. C. B. Bunte and others' No. 6 I. J. Smith, top sand 3,700 feet, initial production 60 bbls. per hour through three-fourths-inch tubing choke, total depth 3,702 feet. Humble Oil & Refining Co.'s No. 3 M. C. Thompson, top sand 3,615 feet, initial production 50 bbls. in one-half hour through three-fourths-inch tubing choke, total depth 3,623 feet. Long Drilling Co.'s No. 2 G. A. Turner, top sand 3,797 feet, initial production 45 bbls. per hour through open 2-inch tubing, total depth 3,800 feet. McMahon-Moore and McCulloch's No. 5 S. S. Cooke, top sand 3,705 feet, initial production 41 bbls. per hour through open 2½-inch tubing, total depth 3,711 feet. Mid-Kansas Oil & Gas Co.'s No. 7 J. H. Sharp, top sand 3,668 feet, initial production 80 bbls. per hour through open 2½-inch tubing on 2-inch lead, total depth 3,671 feet. Pugh and Hickman's No. 4 R. G. Wright, top sand 3,711 feet, initial production 70 bbls. in one-half hour through open tubing, total depth 3,718 feet.

Sinclair Prairie Oil Co.'s No. 17-A Jarvis, top sand 3,697 feet, initial production 50 bbls. per hour through open 2½-inch tubing, total depth 3,703 feet; No. 11-C Jarvis, top sand 3,662 feet, initial production 30 bbls. in one-fourth hour through open 2½-inch tubing, total depth 3,668 feet; No. 5 E. E. Moores, top sand 3,773 feet, initial production 30 bbls. in one-fourth hour through open tubing, total depth 3,775 feet. Sun Oil Co.'s No. 6 J. A. Layne, top sand 3,643 feet, initial production 50 bbls. per hour through open tubing, total depth 3,653 feet. Neola Oil Co.'s No. 2 Church Lot, top sand 3,836 feet, initial production 60 bbls. in one-half hour through open 2½-inch tubing, total depth 3,838 feet.

Upshur County

Atlantic Oil & Production Co.'s No. 8 Porter, top sand 3,641 feet, initial production 20 bbls. per hour through tapered tubing, total depth 3,662 feet. Cal-Pet Co.'s No. 8 I. Walker, top sand 3,646 feet, initial production 111 bbls. per hour through 2-inch open tubing, total depth 3,655 feet. Danciger Oil & Refining Co.'s No. 5 Stinchomb, top sand 3,742 feet, initial production 20 bbls. in 10 minutes through 1½-inch tubing choke, total depth 3,745 feet. Humble Oil & Refining Co.'s No. 3-A J. T. Miller, location abandoned; No. 5-B J. T. Miller, top sand 3,655 feet, initial production 17 bbls. in one-fourth hour through three-fourths-inch tubing choke, total depth 3,688 feet; No. 9 I. D. Smith, top sand 3,586 feet, initial production 75 bbls. per hour through three-fourths-inch tubing choke, total depth 3,616 feet; No. 4 Phillips, top sand 3,640 feet, initial production 46 bbls. per hour through three-fourths-inch tubing choke, total depth 3,661 feet.

Magnolia Petroleum Co.'s No. 4 O. M. Smith, top sand 3,655 feet, initial production 180 bbls. per hour through open tubing, total depth 3,596 feet. Salome-Cooper and others' No. 3 E. O'Byrne, top sand 3,667 feet, initial production 52 bbls. in one-fourth hour through 2-inch tubing, total depth 3,671 feet. Simms and Buttram's No. 7 W. R. Nicholson, top sand 3,710 feet, initial production 108 bbls. per hour through open casing, total depth 3,719 feet. W. W. Wheeler and others' No. 2 J. B. Webb, top sand 3,657 feet, initial production 25 bbls. per hour through tapered tubing, total depth 3,669 feet. J. A. Woods' No. 3 J. H. Sheppard, top sand 3,662 feet, initial production 30 bbls. in one-fourth hour through 2-inch tubing, total depth 3,695 feet. Mannas and Snugg's No. 1 C. C. Pool, dry and abandoned, total depth 4,182 feet, top Georgetown lime 4,140 feet.

Van Zandt County

Pure Oil Co.'s No. 6 M. P. Neill, initial production 70 bbls. first 24-hour gauge after choked for proration, total depth 2,956 feet; No. 2 B. W. Camper, initial production 225 bbls. first 24-hour gauge after choked for proration, total depth 2,890 feet.

ROCKY MOUNTAIN RUNS

Average daily pipe line runs from fields in the Rocky Mountain territory for the week ended June 25 follows:

WYOMING	
Salt Creek	21,250
Badger Basin	50
Big Muddy	1,650
Byron-Garland	2,160
Dallas-Derby	580
Dutton Creek	70
Elk Basin	620
Ferris	20
Frannie	30
Grass Creek	1,260
Hamilton Dome	910
Hudson	340
LaBarge	830
Lance Creek	480
Lost Soldier	2,690
Midway	80
Oregon Basin	
Osage	950
Pilot Butte	40
Rock River	1,190
Poison Spider	90
Teapot	20
Total Wyoming	35,010
MONTANA	
Buckley-Border	640
Cat Creek	850
Dry Creek	300
Kevin-Sunburst	3,340
Lake Basin	60
Pondera	1,480
Total Montana	6,700
COLORADO	
Florence	270
Fort Collins	800
Iles	600
Moffat	650
Orchard	290
Rangely	90
Tow Creek	260
Total Colorado	2,960
NEW MEXICO	
Rattlesnake	650
Hogback	320
Table Mesa	70
Artesia	455
Cap Rock	1,134
Hobbs	29,405
Jal	917
Lea City	2,044
Eunice	511
Texas Pacific	97
Total New Mexico	35,603
Total Rocky Mountain area	80,273
Total previous week	80,716
Difference	443

DOMESTIC EXPORTS OF PETROLEUM AND REFINED PRODUCTS

		Month of May		Five months ending May	
		1931	1932	1931	1932
Petroleum crude	Bbls.	2,267,666	2,942,564	9,308,274	11,385,410
Petroleum crude	$	1,871,386	2,887,287	8,884,071	10,751,863
Total refined petroleum	Bbls.	8,960,438	8,223,397	39,663,601	33,697,759
		23,496,601	19,257,080	109,611,841	79,627,619
Gasoline, naphtha, and other light products	Bbls.	4,792,073	4,417,504	19,828,587	17,024,892
Gasoline, naphtha, and other light products	$	12,539,634	9,893,966	55,701,495	39,195,595
Oils, illuminating	Bbls.	1,144,874	857,633	5,298,761	4,316,371
Oils, illuminating	$	3,329,456	1,960,157	15,739,768	9,734,216
Gas and fuel	Bbls.	2,287,046	2,119,644	11,296,686	9,172,953
Gas and fuel	$	2,165,772	1,882,190	10,590,475	7,805,997
Lubricating	Bbls.	727,393	815,583	3,196,623	3,138,442
Lubricating	$	5,353,745	5,391,441	27,038,014	22,478,433
Other refined petroleum	Bbls.	9,052	13,033	42,944	45,101
Other refined petroleum	$	107,994	129,326	542,089	413,378
Paraffin wax	Lbs.	17,584,272	17,032,812	114,982,846	92,262,122
Paraffin wax	$	512,885	470,878	3,535,809	2,554,756

THE OIL MAN'S CALENDAR

JULY

28-29—Los Angeles, Calif., Pacific Coast regional meeting American Institute of Mining & Metallurgical Engineers.

JULY-AUGUST

July 16 to August 28—Atlantic City, N. J., third American Fair, Atlantic City Auditorium.

AUGUST

10—Nashville, Tenn., Tennessee Oil Men's Association, Noel Hotel.

22-26—Denver, Colo., American Chemical Society.

23-26—Spokane, Wash., Pacific Coast Gas Association, Hotel Davenport.

30—Cleveland, Ohio, National Air Races.

SEPTEMBER

10-17—Cleveland, Ohio, Society of Automotive Engineers.

14-16—Atlantic City, N. J., annual meeting, National Petroleum Association.

15-17—Atlantic City, N. J., American Trade Association Executives.

22-23—Chicago, National Association of Motor Bus Operators.

Last week—Columbus, Ohio, Ohio Petroleum Marketers Association.

30-Oct. 1—Dallas, Tex., American Institute of Mining & Metallurgical Engineers, petroleum division.

OCTOBER

3-7—Buffalo, N. Y., National Metal Exposition and National Metal Congress, and American Society for Steel Treating.

3-7—Washington, D. C., National Safety Council.

4-6—Toronto, Canada, Society of Automotive Engineers, transportation meeting.

10-14—Atlantic City, N. J., annual convention, American Gas Association.

11-12—Louisville, Ky., Kentucky Petroleum Marketers Association.

(?) —Chicago, Ill., American Society of Mechanical Engineers (fuel division).

NOVEMBER

10—Los Angeles, Calif., California Natural Gasoline Association.

10-12—Atlanta, Ga., Southeastern Economic Conference.

15-17—Houston, Tex., thirteenth annual meeting, American Petroleum Institute.

DECEMBER

(?) —Great Falls, Mont., Rocky Mountain Oil and Gas Association, Rainbow Hotel.

5-9—New York, N. Y., American Society of Mechanical Engineers.

5-10—New York, N. Y., National Exposition of Power and Mechanical Engineering.

Wildcat Operations in West Texas
(Continued from Page 44)

Southern Oil Co.'s No. 1 Purdue, 990 ft. from S and E Sec. 202, Blk. B, B.B.&C. Sur. ..... Drlg. 675 ft.

GAINES COUNTY

McElreath et al's No. 1 Sparks, 330 ft. from N and E Sec. 337, Blk. G ..... S.D. 594 ft.; moving in rotary; rigging rotary.

GLASSCOCK COUNTY

Kirby et al's No. 1 Baker, 330 ft. from N and W Sec. 23, Blk. 33, Twp. 2s, T.&P. Sur. ..... S.D. 2,383 ft.

Mann et al's No. 1 fee, 330 ft. from N and 1,980 ft. from E, Sec. 37, Blk. 34, Twp. 3s, T.&P. Sur. ..... T.D. 3,470 ft.; to plug.

GARZA COUNTY

Penny & Posey's No. 1 Justice, 1,980 ft. from S and 1,650 ft. from E of Sec. 25, Blk. 6, H.&G.N. Sur. (3,500-ft. cable tool test) ..... S.D. 3,390 ft.

HOWARD COUNTY

American-Maracaibo's No. 5-A Settles, 1,596 ft. from N, 1,854 ft. from W, Sec. 6, Blk. 32, T.&P. Sur. ..... S.D. 185 ft.

Amerada Pet. Corp.'s No. 4 Coffee, 1,300 ft. from N and 1,650 ft. from W, Sec. 32, Blk. 33, Twp. 2s, T.&P. Sur. ..... Location.

Amerada Pet. Corp.'s No. 5 Coffee, 2,310 ft. from N and 1,650 ft. from W, Sec. 32, Blk. 33 ..... Location.

Green O. & R. Co.'s No. 1 Denman, 990 ft. from S and 2,310 ft. from W, Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. Spudded and S.D.

Merrick & Lamb's No. 4 Chalk, 1,650 ft. from N and 990 ft. from W, Sec. 125, Blk. 29, W.&N.W. Sur. ..... Rigging up machine.

Myers et al's No. 1 Denman, 2,305 ft. from S and 2,320 ft. from E Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. ..... S.D. 1,030 ft.

Pure Oil Co.'s No. 12 Chalk, 1,650 ft. from N and E, Sec. 125, Blk. 29, W.&N.W. Sur. ..... T.D. 1,850 ft.; plugged back to 1,760 ft.; to put on pump.

Schermerhorn Oil Co.'s No. 5 Kloh, 660 ft. from S and W of Sec. 13, Blk. 33, Twp. 2s, T.&P. Sur. ..... T.D. 2,500 ft.; to put on pump.

Sinclair-Prairie Oil Co.'s No. 2 Dodge, 2,312 ft. from S and 300 ft. from W, Sec. 11, Blk. 30, Twp. 1s, T.&P. Sur. ..... Drlg. 2,550 ft.

IRION COUNTY

Apollo Oil Co.'s No. 4 Nutt, 604 ft. from N and 1,562 ft. from W of Subd. No. 4, Gonzales County School Land ..... Drlg. 1,240 ft.

Davis et al's No. 1 Suggs, 1,560 ft. from S and 925 ft. from W, Sec. 2,061, Blk. 28, H.&T.C. Sur. ..... S.D. 7,543 ft.

Johnson's No. 1 Tankersley, 1,340 ft. from S and 150 ft. from E, Sec. 736, F. Sockstedt Sur. ..... T.D. 1,393 ft.; plugged back to 1,301 ft.

Stanolind Oil & Gas Co.'s No. 1 Williams, 1,320 ft. from S and E of Sec. 1,196, T.T.R.R. Sur. ..... S.D. 7,420 ft.; moving in Diesel engine.

JONES COUNTY

Abers et al's No. 1 Burton, 150 ft. from S and 175 ft. from E of 43.4-acre tract in G. Martinez Sur. ..... S.D. 1,005 ft.; temp. abnd.

Johnson's No. 1 Huddleston, 165 ft. from S and W of N half of Sec. 39, Blk. 14, T.&P. Sur. ..... Spudded and S.D.

J. M. Johnson's No. 1 Swann, 6,150 ft. from S and 1,650 ft. from E. I. Miley Sur. ..... Drlg. 1,265 ft.

Robert Oil Co.'s No. 1 Swann, 2,350 ft. from W and 2,920 ft. from S, I. Miley Sur. ..... Drlg. 1,100 ft.

Smart & Reynolds' No. 1 Reynolds, 2,500 ft. from N and 150 ft. from W, Sec. 2, W. T. Scott Sur. No. 2. S.D. 175 ft.

Southern Oil Co.'s No. 1 Sears, 300 ft. from S and W J. H. Grayson Sur. ..... T.D. 535 ft.; running 12-in. csg.

C. S. Spelling et al's No. 1 Lillie, 300 ft. from N and W Sec. 4, E. Miller Sur. No. 2 ..... S.D. 1,751 ft.

Transcontinental Prod. Co.'s No. 1 Rust, 5,800 ft. N and 995 ft. W of SE cor. J. J. Hughes Sur. 556 ..... Spudded.

Young et al's No. 1 Harrell, 150 ft. from S and E of N half of Sec. 8, O.A.L. Sur. ..... Location.

LOVING COUNTY

Eppenauer's No. 1 Freels, 1,263 ft. from NE, 410 ft. from NW, Sec. 93, Blk. 1, W.&N.W. Sur. ..... Drlg. 4,125 ft.

Covey et al's No. 1 Wheat, 2,310 ft. from SW, 330 ft. from SE, Sec. 3, Blk. 2, W.&N.W. Sur. ..... S.D. 1,300 ft.

Eppenauer Drlg. Co.'s No. 1 Allen, 495 ft. from NE and SE, Sec. 4, Blk. 2, W.&N.W. Sur. ..... S.D. 4,263 ft.

Ervin & Mahres' No. 1 Thrope, 2,310 ft. from E and 330 ft. from S, Sec. 46, Blk. 53, T.&P. Sur. ..... S.D. 810 ft.

Fair Lawn Syndicate's No. 1 Brookfield, 330 ft. from N and W, Sec. 30, Blk. 29, P.S.L. ..... Drlg. 2,130 ft.

Falbro & Evans' No. 1 Dean, 334 ft. from NE and 990 ft. from NW, Sec. 79, Blk. 33, H.&T.C. Sur. ..... S.D. 4,275 ft.

Goldman et al's No. 1 Allen, 330 ft. from NE and NW of Sec. 30, Blk. 1, W.&N.W. Sur. ..... Drlg. 825 ft.

Lewis & Siegel's No. 1 Johnson, 330 ft. from N and 1,650 ft. from W, Sec. 6, Blk. 56, Twp. 1, T.&P. Sur. S.D. 2,280 ft.

Martin's No. 1 Freels, 3,514 ft. from NE and 412 ft. from NW of Sec. 92, Blk. 1, W.&N.W. Sur. ..... T.D. 4,051 ft.; running 6⅝-in. csg.

Martin et al's No. 1 Wheat, 990 ft. from SW and SE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... Rig.

Miller et al's No. 1 Ferguson, 990 ft. from NE of Sec. 44, Blk. 29 ..... Spudded and S.D.

Tennant et al's No. 1 Martin, 990 ft. from NW and SW, Sec. 66, Blk. 1, W.&N.W. Sur. ..... T.D. 4,388 ft.

Thomas' No. 1 Wheat, 2,310 ft. from NW, 990 ft. from NE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... S.D. 3,660 ft.

MENARD COUNTY

Priest's No. 1 Serrel, 1,000 ft. from E and 200 ft. from S cor., Sec. 132, E.L.R.R. Sur. ..... S.D. 2,860 ft.

PECOS COUNTY

Adams et al's No. 1 Shearer, 1,650 ft. from SE and 330 ft. from NE Sec. 101, Blk. 16, H.&G.N. Sur. ..... Material.

Aero Gas & Royalty Co.'s No. 2 Byrne, 1,470 ft. from NW and 1,500 ft. from SW, Sec. 54, Blk. 10, H.&G.W. Sur. ..... Material on ground.

Corvette Oil Corp.'s No. 8 H. Monroe, 1,040 ft. from E line and 150 ft. from N line of Sec. 29, G.C.&S.F. Sur., Blk. 194 ..... Location.

Hampton et al's No. 1 Byrne, 1,980 ft. from NW and 1,500 ft. from NE. Sec. 54. Blk. 10. H.&G.N. Sur. S.D. 1,395 ft.; T.P. 1,356 ft.

New State Oil Co.'s No. 1 Tippett, 1,349 ft. from S and 330 ft. from E, Sec. 40, Blk. 194, G.C.&S.F. Sur. ..... Drlg. 540 ft.

PRESIDIO COUNTY

Sadler et al's No. 1 Bledsoe, 2,640 ft. from N and W Sec. 15, Blk. 354, G.C.&S.F. Sur. ..... S.D. 328 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 6-C University, 1,370 ft. fro mS and 1,000 ft. from E, Sec. 12, Blk. 2 ..... T.D. 8,367 ft.; drlg. on tools 7,979 ft.

Big Lake Oil Co.'s No. 7-C University, 1,670 ft. from W and 725 ft. from S, Sec. 36, Blk. 9 ..... Drlg. 5,210 ft.

Group Oil Corp.'s No. 5-B University, 2,709 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ..... Drlg. 3,803 ft.

REEVES COUNTY

F. McDorman et al's No. 1 Ray Roberts et al, 2,310 ft. from S and E lines of Sec. 32, Blk. 59, P.S.L. Sur. ... Drlg. 1,210 ft.

Southern Star Oil Co.'s No. 1 Wright, 1,320 ft. from S and W, Sec. 58, Cassel's Sur. ..... Drlg. 255 ft.

RUNNELS COUNTY

Blue Bonnett Oil Co.'s No. 1 McMillan, 1,368 ft. from N and 660 ft. from W, Sec. 22, N. Travis Sur. ..... Cleaning out 1,944 ft.

Dutton et al's No 1 Dean, 5,475 ft. from NE and 1,648 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-20 ft.; S.D. 3,600 ft.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C Sec. 29, Blk. M, G.H.&S.A. Sur. ..... T.D. 5,410 ft.; fishing.

Wemer et al's No. 1 Nicks, 2,310 ft. from N and 2,303 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... T.D. 5,580 ft.; drlg. by tools.

George Wilson's No. 1 Pace, Sec. 40, Blk. L, 1,290 ft. from N, 1,570 ft. from W, G.H.&S.A. Sur. ..... S.D. 5,963 ft.

SCURRY COUNTY

G. E. Dickman et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 375, Blk. 2, E.&T.C. Sub. ..... S.D. 5,050 ft.

W. S. Guthrie's No. 1 Snyder National Bank, 330 ft. from N and 2,310 ft. from E of Sec. 115, Blk. 97, H.&T.C. Sur. ..... Drlg. 645 ft.

Scurry County Oil Exchange's No. 1 Earnest, 2,310 ft. from N and W, Sec. 48, Blk. 3, H.&G.N. Sur. ..... Spudded and S.D.

Seifert & Dibble's No. 1 T. M. Blackburn, 2,310 ft. from N and 2,310 ft. from W line of Sec. 153, Blk. 97, H.&T.C. Sur. ..... S.D. 4,875 ft.

TAYLOR COUNTY

Dunigan et al's No. 2 Hunter, 2,387 ft. from N and 3,567 ft. from E of Sec. 27, W. R. Wills Sur. No. 122. Drlg. 1,075 ft.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW Sec. 155, Blk. D, M.-K.-T. Sur. ..... S.D. 2,269 ft.

Keck Pecos Trust Co.'s No. 1 Hamilton, C Sec. 6, Georgetown Ry. Sur. ..... S.D. 3,150 ft.; moved off tools.

Miller Bros.' No. 1 Allison & Burke, C NW Sec. 10, Blk. 176, T.&P. Sur. ..... S.D. 120 ft.

Mid-Kansas Oil & Gas Co.'s No. 1 Goode, 2,152 ft. from E and 330 ft. from S, Sec. 26, Blk. 161, G.C.&S.F. Sur.. S.D. 6,120 ft.

Jones et al's No. 1 Pankenham, C SE NW Sec. 48, Blk. B-2, C.C.S.D.&R.G.N.G. Sur. ..... S.D. 2,545 ft.

Sides et al's No. 1 Phelps, 2,157 ft. from N and 2,482 ft. from W, Sec. 5, G. W. Hurley Sur. ..... Drlg. 1,970 ft.

TOM GREEN COUNTY

Belding & Dutton's No. 1 Norsworthy, 1,640 ft. from S and 527 ft. from E of John McNeese Sur. ..... S.D. 760 ft.; S.O. and gas 735 ft.

Mintex Oil Co.'s No. 1 Campbell Est., 446 ft. from S and 630 ft. from W of Sec. 150, Dist. No. 11, S.P. Sur... S.D. 1,994 ft.

Pratt & Hancock's No. 2 Lewis, 100 ft. N and 330 ft. E of most northerly SW cor. of Joshua S. Grant Sur. No. 2 ..... S.D. 200 ft.

UPTON COUNTY

Farley et al's No. 3 Lane, 1,650 ft. from S and 330 ft. from W, Sec. 36, Blk. 1, M.-K.-T. Sur. ..... Location.

VAL VERDE COUNTY

Couch et al's No. 1 J. P. Yoas, 1,300 ft. from the N line and E line of Sec. 81, Blk. 1 ,L&G.N. Sur. ..... S. D. 220 ft.

Independent Operators' No. 1 Whitehead, SE SE Sec. 10, Blk. 4, L&G.N. Sur., elev. 1,275 ft. ..... S.D. 5,360 ft.

O. O. Owens' No. 1 Mills, Sec. 128, Blk. 1, L&G.N. Sur., elev 2,130 ft. ..... S.D. 6,780 ft.

WARD COUNTY

Abell Bros. et al's No. 1 Smith, 330 ft. from NE and NW, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Fishing 2,265 ft.

Abell Bros.' No. 2 Smith, 2,310 ft. from SE and 2,020 ft. from NE, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Drlg. 270 ft.

Abell Bros.' No. 3 Smith, 2,310 ft. from NE and NW, Sec. 4 ..... Drlg. 1,420 ft.

Bradford & Bentley's No. 1 B. Carson, 1,650 ft. from the NE line and 990 ft. from the SE line of Sec. 36, H.&T.C. Sur., Blk. " ..... Drlg. 2,000 ft.

Caprito et al's No. 1 Beatty, 330 ft. from SW and 990 ft. from SE, Sec. 3, Blk. 34, H.&T.C. Sur. ..... Material on ground.

Eastland Oil Co.'s No. 1 Green, 2,364 ft. from NW and 2,310 ft. from SW Sec. 4, Blk. 34, H.&T.C. Sur. ..... Rigging up.

Eastland Oil Co.'s No. 2 Weiss, 1,728 ft. from SW and 2,365 ft. from SE, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Location.

Eppenauer's No. 1 Purcell, 365 ft. from SW and 1,650 ft. from SE of Sec. 17, Blk. 14, H.&T.C. Sur. ..... T.D. 2,740 ft.

H. V. Greer's No. 1 Carr, 150 ft. from NW and 510 ft. from SW, Sec. 12, Blk. 5, H.&T.C. Sur. ..... S.D. 2,223 ft. (corrected).

Gulf Prod. Co.'s No. 11 Hutchings, 330 ft. from N and 990 ft. from W of 370 acres in S half Sec. 5, Blk. F .. Drlg. 2,680 ft.; flowing 45 bbls. in 24 hrs.

Gulf Production Co.'s No. 22 O'Brien, 1,100 ft. from N and 330 ft. from E, Sec. 16, Blk. F, G.M.M.B.&A. Sur. ..... Rig.

Leydecker et al's No. 1 Bennett, 2,310 ft. from NW and NE, Sec. 16, Blk. 34, H.&T.C. Sur. ..... T.D. 2,532 ft.; 500 ft. oil in hole from 2,316 ft.

Massie et al's No. 1 Stewart, 330 ft. from SW and SE, Sec. 12, Blk. 14, H.&T.C. Cur. ..... S.D. 2,445 ft.

Moran & Burkhart's No. 2 J. T. Sweatt et al, 3,310 ft. from SW, Sec. 1, J. Howe Sur. ..... S.D. 2,000 ft.

R. F. Owen's No. 1 Lee, 1,344 ft. from NW and 4,532 ft. from SW, Sec. 1, J. Howe Sur. ..... T.D. 1,760 ft.; underreaming 8¼-in. csg. at 1,740 ft.

Penn Oil Co.'s No. 1 York, 2,310 ft. from NW and SW Sec. 10, Blk. 34, H.&T.C. Sur. ..... Drlg. 175 ft.

Plains Prod. Co.' and Simms Oil Co.'s No. 1 Benton Land Co., 440 ft. from the SE and 440 ft. from SW lines of Sec. 26, W.&N.W.R.R. Sur., Blk. 1 ..... Drlg. 1,675 ft.

Renaud-Prettyman's No. 1 University, 330 ft. from N and E Sec. 4, Blk. 16 ..... Drlg. 1,210 ft.

Rixford et al's No. 1 Green, 330 ft. from NW and SW Sec. 4, Blk. 34, H.&T.C. Sur. ..... T.D. 2,454 ft.

Sturm-Simms Oil & Gas Co.'s No. 2 Jones, 1,650 ft. from NE and 330 ft. from SE, Sec. 25, Blk. B-29, P.S.L.... S.D. 2,500 ft.; flowing 100 bbls. daily.

Thomas et al's No. 1 Bennett, 2,310 ft. from NE and SE, Sec. 16, Blk. 34, H.&T.C. Sur. ..... S.D. 560 ft.

White et al's No. 1 Burtner, 150 ft. from NE and 515 ft. from SE of Sec. 8, Blk. 32, H.&T.C. Sur. ..... S.D. 755 ft.

WINKLER COUNTY

Adams et al's No. 1 Scarborough, 660 ft. from N and E Sec. 1, Blk. 77, P.S.L. ..... T.P. 2,820 ft.; T.D. 3,175 ft.; swabbed 180 bbls. in 12 hrs.; running tu ing.

Wildcat Operations in Texas Panhandle
Week Ending June 27

BRISCOE COUNTY

Company, well, farm name, section and block—	Remarks:
Humble O. & R. Co.'s No. 1 C. Adair est., 2,500 ft. from N line, 2,100 ft. from E line, Sec. 7, Blk. G-6	S.D. 4,000 ft.

CARSON COUNTY

Danciger's No. 4 Byrum, 330 ft. from N and E, Sec. 188, Blk. 3, I.&G.N. Sur. ..... Cellar.

H. A. M. Oil Co.'s No. 2 Cooper, 330 ft. from S and E, Sec. 5, Blk. 9, I.&G.N. Sur. ..... Location.

Pulse-Shell Pet. Corp.'s No. 1 Byrum, 330 ft. from N and W, W½ NE, Sec. 188, Blk. 3, I.&G.N. Sur. .... T.P. 3,065 ft.; drlg. 3,190 ft.; flowed 40 bbls. in 24 hrs.

Skelly Oil Co.'s No. 10 E. Schaffer, 440 ft. from S, 2,640 ft. from E of N half, Sec. 189, Blk. 3, I.&G.N. Sur.... T.D. 3,228 ft.; to shoot.

Skelly Oil Co.'s No. 11 East Schaffer, 440 ft. from N, 2,640 ft. from E, Sec. 189, Blk. 3, I.&G.N. Sur. ..... Location.

Skelly Oil Co.'s No. 13 West Schaffer, Blk. 4, Sec. 37, I.&G.N. Sur. ..... Swabbed 20 bbls. in 6 hrs.; cmtd. 8-in. csg. at 2,185 ft.

The Texas Co.'s No. 1-C Garner, 990 ft. from N and E, NW, Sec. 94, Blk. 4, I.&G.N. Sur. ..... Drlg. 2,550 ft.

Texoma Nat. Gas Co.'s No. 1-G Dover, 2,420 ft. from N, 2,645 ft. from W, Sec. 74, Blk. 4, I.&G.N. Sur. ..... Rigging up cable tools.

COLLINGSWORTH COUNTY

Dixon et al's No. 1 Bell, 330 ft. N, 1,320 ft. W, Sec. 102, Blk. 21, H.&G.N. Sur. ....S.D. 2,508 ft.

Downey et al's No. 1 Beasley, SE cor. SW SE, Sec. 95, Blk. 15, H.&G.N. Sur. ....Rigged up.

Kates et al's No. 1 Hickman, center NE, Sec. 43, Blk. 10, H.&G.N. Sur. ....Location.

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puersil, 330 ft. from N, 1,320 ft. from E, Sec. 40, Blk. B, John H. Stevens Sur. ....Building rig.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 18-3n-3e ....Drlg. 610 ft.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur. ....S.D. 2,428 ft.

Bell O. & G. Co.'s No. 1 Tedesco-Webb, 330 ft. from S and E, Sec. 61, Blk. 25, H.&G.N. Sur. ....Rig on ground.

Boyes et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 45, Blk. 25, H.&G.N. Sur. ....S.D. 1,650 ft.

Danciger O. & R. Co.'s No. 3 Williams, 150 ft. from N, 1,650 ft. from W S half NW, Sec. 7, Blk. 1, A.C.H.& B. Sur. ....Building derrick.

Danciger O. & R. Co.'s No. 9 Powell-Beck, 330 ft. from N, 1,605 ft. from W, Sec. 23, Blk. B-2, H.&G.N. Sur. ....T.D. 2,781 ft.; standardising.

Elbar Corp.'s No. 1 Sethinga, 330 ft. from S and E, Sec. 13, Blk. A-9, H.&G.N. Sur. ....Drlg. 2,075 ft.

Granite Prod. Co.'s No. 1 Chapman, 275 ft. from N line, 110 ft. from W line, S½ SW, Sec. of Blk. 26, H. &G.N. Sur. ....S.D. 2,900 ft.

Jean Pet. Co.'s No. 1 Furneaux Bros., 330 ft. N and W, cor. SE, Sec. 200, Blk. 2-B, H.&G.N. Sur. ....Fishing 3,076 ft.

Jewel Oil Co.'s No. 1 Meers, 330 ft. from S and W, NW SW, Sec. 106, Blk. 3, L.&G.N. Sur. ....Fishing 3,325 ft.

Mazda-Shell's No. 2 Worley Reynolds, 660 ft. from S and E of NE, Sec. 35, Blk. 3, L.&G.N. Sur. ....Drlg. 2,180 ft.

Nipper et al's No. 1 Morse, 330 ft. from N and E, Sec. 1, Blk. 24, L.&G.N. Sur. ....Fishing 2,635 ft.

Nabob Oil Co.'s No. 1-E Morse, 330 ft. from S and W, W½ SE, Sec. 67, Blk. 25, H.&G.N. Sur. ....Drlg. 2,335 ft.; gas at 2,275 ft.

Parten & Holt's No. 2 Morse, 330 ft. from W, 250 ft. from N, W½ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ....T.D. 1,603 ft.; underreaming 8-in. csg.

Pulse-Shell Pet. Corp.'s No. 1 Culler, 330 ft. from S and E, Sec. 173, Blk. 3, L.&G.N. Sur. ....Drlg. 1,225 ft.

Pulse-Shell's No. 1 Brown, 290 ft. from N, 250 ft. from E of NW, Sec. 128, Blk. 3, L.&G.N. Sur. ....Rig.

Saulsbury et al's No. 1 Davidson, 330 ft. from S and W, Sec. 87, Blk. B-2, H.&G.N. Sur. ....Drlg. 2,760 ft.

Saunders et al's No. 2 Sullivan, 822 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 1, L&G.N. Sur. ....Will plug back to 2,275 ft. and shoot.

Tarber's No. 1 Saunders, 330 ft. N and W, Sec. 2, Blk. 1, B.B.&S.F. Sur. ....Location.

Tedesco Oil Co.'s No. 3 Morse, 330 ft. from N and E of NE SW, Sec. 1, Blk. 26, H.&G.N. Sur. ....Drlg. 2,115 ft.

The Texas Co.'s No. 4 Davis (old well drilled deeper), Blk. 1, Sec. 8, A.C.H.&B. Sur. ....Cellar.

The Texas Co.'s No. 10 Cook-Faulkner, 330 ft. from S, 1,605 ft. from W, Sec. 29, Blk. B-2, H.&G.N. Sur. ....Fishing 2,770 ft.

The Texas Co.'s No. 10 Williams, 150 ft. from S, 1,650 ft. from W, Sec. 7, Blk. 1, A.C.H.&B. Sur. ....Rigging up rotary.

Thorp et al's No. 1 Short, 330 ft. from N and E, Sec. 2, Blk. 1, H.&G.N. Sur. ....Moving in rig.

Travis' No. 3 Back, 330 ft. from S, 2,309 ft. from E, Sec. 44, Blk. 25, H.&G.N. Sur. ....S.D. 2,955 ft.; shot 40 qts. 2,595-2,630 ft.; to test.

Tripplehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-2, H.&G.N. Sur. ....Location.

Travis et al's No. 2-B Webb, 990 ft. from S, 330 ft. from E of NW, Sec. 61, Blk. 25, H.&G.N. Sur. ....Location.

Weltzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ....Spudded.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,300 ft. from E, G. S. Hood Sur. ....To deepen old well; T.D. 5,055 ft.; rigging up.

HUTCHINSON COUNTY

Base's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21, T.C.R.R. Sur. ....T.D. 3,080 ft.; shot 100 qts. 3,028-64 ft.; may plug.

Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ....Spudded and S.D.

Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 31, Blk. 46, H.&T.C. Sur. ....S.D. 450 ft.

Holmes & Newblock's No. 2 Moore-Langdon, 330 ft. from N and W, Sec. 135, Blk. 4, L&G.N. Sur. ....Drlg. 2,350 ft.

Huber Pet. Co.'s No. 1-A Weatherly, 330 ft. from N and W, Sec. 36, Blk. Y, A.&B. Sur. ....Drlg. 2,525 ft.

Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 4, Blk. 1, B.&B. Sur. ....Plugged back to 3,146 ft.; S.D.

Oates & Morrow's No. 2 Starnes, 1,480 ft. from S, 680 ft. from E, Sec. 24, Blk. M-23, T.C.R.R. Sur. ....Rig.

Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ....Spudded.

Rock Creek Oil Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ....Location.

Timms-Deatch's No. 4 Moore, 330 ft. N and W, Sec. 124, Blk. 4, L.&G.N. Sur. ....Rig.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ....T.D. 5,003 ft.

MOORE COUNTY

Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ....S.D. 205 ft.

Interstate's No. 1 Nield, C NE, Sec. 18, Blk. 44, H.&T. C. Sur. ....Rig up.

Pollard et al's No. 1 Hall, 330 ft. S and E, NE, Sec. 131, Blk. 3-T, T.&N.O. Sur. ....Rig on ground.

Shamrock Oil & Gas Co.'s No. 2 Brumley, 330 ft. from N and W, Sec. 360, Blk. 44, H.&T.C. Sur. ....Drlg. 805 ft.

Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. ....Rig.

Sunray Oil Co.'s No. 2 Jones, 330 ft. N and W, W½ SW, Sec. 164, Blk. 3-T, T.&N.O. Sur. ....Rig.

MOTLEY COUNTY

Matador Oil Corp.'s No 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ....S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ....S.D. 400 ft.

Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. 8, G.C.&S.F. Sur. ....Underreaming 8-in. csg. 3,750 ft.

PARMER COUNTY

Magnolia Pet. Co.'s No. 1 Wilson, 330 ft. from N and W, SE, Sec. 73, H. Kelly Sur. ....Drlg. 5,645 ft.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ....Cmtd. cave 4,090 ft.

Travis et al's No. 1 Cunningham, 330 ft. S and W, Sec. 74, Blk. M-2, H.&G.N. Sur. ....S.D. 2,690 ft.

WHEELER COUNTY

Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ....T.D. 2,760 ft.; estm. 1,000 ft. oil in hole.

East Central Texas Wildcats

(Continued from Page 42)

ELLIS COUNTY

Armstrong's No. 1 Milton Cook, SE cor. of 50-ac. tract, S. Frederick Sur. ....S.D. 215 ft.

Armstrong Bros.' No. 1 Reeves ....Waiting on cmt. to set 100 ft.

Armstrong Bros.' No. 1 John Lee Winn, 1,650 ft. from E and 150 ft. from S of Orland, Orlo Wheeler Sur. ....S.D. 1,435 ft.

Clark Brooks' No. 1 Anderson, SE cor. of 3,900-ac. tract, 10 miles SW of Wachatchie, E. C. Branch Sur. ....Location.

Werthen Petroleum Co.'s No. 2 Cerf, Mulligan Farm Sur., 50 ft. W of No. 1 ....S.D. 2,310 ft.

FRANKLIN COUNTY

Tom Harper's No. 1 fee, 150 ft. from N line and 200 ft. from E line of 116-ac. tr., W. M. Dawson Sur. ....Fishing 3,220 ft.

T. E. Mayberry's No. 1 M. L. Edwards, 345 ft. from E line of lease and 6¼ miles NW of Mount Vernon, C. R. Miller Sur. ....Derrick.

GREGG COUNTY

Acme Oil Co.'s No. 1 J. S. Elder, center of 3-ac. tract, M. V. Winkle Sur. ....Rig up.

Henry L. Allen's No. 1 Bonner Estate, 330 ft. from N and E lines of 19.4-ac. lease, J. McRae Sur. ....Swabbing 3,585 ft.

Atlantic Oil Producing Co.'s No. 1 J. C. Judge, 510 ft. S and 1,545 ft. W of NE cor. of lease, F. W. Johnson Sur. ....Top sand 3,497 ft.; waiting on cmt. to set.

D. M. Buffington's No. 1 Dansley, 500 ft. W and 200 ft. N of NE cor. of Searight Blackman 100-ac. lease, W. P. Chisum Sur. ....S.D. 1,700 ft.

Burnham and Johnson's No. 1 H. L. Dansby, 650 ft. from E line of tract and 260 ft. from S line of lease, W. P. Chisum Sur. ....Derrick.

Dean and Atkinson's No. 1 A. V. Bacle, center of S 3.64 acres of E 7.28 acres of N half of 29.13-ac. tract, D. Sanches Sur. ....Drlg. 2,100 ft.

Deaner et al's No. 1 M. T. Cole, 1,665 ft. from N line and 330 ft. from W line of lease, T. Johnson Sur. ....Rig up and S.D.

Dodd and Marker's No. 1 J. F. Holt, 615 ft. E and 707 ft. N of SW cor. of 200-ac. tract, H. Edwards Sur. ....Drlg. 1,710 ft.

Foshee et al's No. 1 fee, in N cor. of Blk. No. 36, H. R. Holit Sur. ....Drlg. 2,110 ft.

Gambrill et al's No. 1 Clayborn, 270 ft. S and 174 ft. E of NW cor. of Clayborn 50-ac. tract, J. Beaty Sur. ....Drlg. 3,430 ft.

Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.2-ac. tract, M. Dillard Sur. ....Derrick.

Guinn Petroleum Co.'s No. 1 J. S. and F. Elder, 200 ft. NE of Solar's No. 1 Elder, and 450 ft. SE of Martin's No. 1 Elder, M. V. Winkle Sur. ....Rig up.

Guiberson et al's No. 1 C. L. Taylor, 236 ft. S and 217 ft. E of NW cor. of N 25 acres of 50-ac. tract W. H. Castleberry Sur. ....Derrick.

Gulf Production Co.'s No. 1 J. Clayborn, center of 20-ac. lease, I. Beaty Sur. ....Drlg. 3,015 ft.

Gulf Production Co.'s No. 1 C. L. Still, 330 ft. from N and W lines of lease, John Wilkerson Sur. ....Drlg. 3,020 ft.

Harther Oil Co.'s No. 1 Roy Laird, SE cor. of Blk. No. 136, M. V. Winkle Sur. ....Derrick.

H. Haubury et al's No. 1 Victory, center of Blk. No. 33, H. R. Holit Sur. ....Set surface csg.

Humble Oil & Refining Co.'s No. 1 J. M. Adams, 330 ft. from N and W lines of lease, J. Ruddle Sur. ....Derrick.

Humble Oil & Refining Co.'s No. 1 J. R. Smith, 330 ft. from W line and 1,070 ft. from N line of lease, D. Sanches Sur. ....Derrick.

Iowan Payne Oil Co.'s No. 1 Akins, 600 ft. from W line and center of N and S lines of lease, W. H. Castleberry Sur. ....Drlg. 3,425 ft.

Island Oil Co.'s No. 1 J. W. Akin, 133 ft. from S line and 330 ft. from E line of lease, W. H. Castleberry Sur. ....Waiting on cmt. to set; T.D 3,-600 ft.

Jones and O'Brien's No. 1 J. M. Prothro, 330 ft. from E line and center of N and S lines of 8.5-ac. lease, J. Blair Sur. ....Testing 3,646 ft.

J. J. Petroleum Corp.'s No. 1 Cumi Wells, 330 ft. from S line and 290 ft. from E line of N 50 acres of 100-ac. tract, J. M. Morris Sur. ....Set csg.; T.D. 3,697 ft.

K. B. Oil Co.'s No. 1 Dickson, 150 ft. from S and 150 ft. from W of 5-ac. lease, Mary Van Winkle Sur. ....S.D. 700 ft.

Lovett-Norr et al's No. 1 Rufus Smith, 1,100 ft. from N line and 750 ft. from W line of lease, R. Slaughter Sur. ....Set surface csg. 55 ft.

Magnolia Petroleum Co.'s No. 1 R. B. Walls, 300 ft. from S line and 279 ft. from E and W lines of 26-ac. lease, D. Dainwood Sur. ....Set surface csg.

Lee Masters' No. 1 Mrs. F. Thompson, center of Blk. No. 151, M. V. Winkle Sur. ....S.D. 3,400 ft.

J. C. O'Brien's No. 1 Maurice Prothro, 330 ft. from W line and center of N and S lines of 8.5-ac. lease, John Blair Sur. ....Testing; T.D. 3,668 ft.

J. B. Patty et al's No. 1 Farrell, 330 ft. S and 175 ft. W of NE cor. of E 50 acres of 148-ac. tract, D. Sanches Sur. ....Location.

J. D. Patty et al's No. 1 J. C. McCormick, 207 ft. SE at right angles to Gladewater-Tyler road and 540 ft. SW of Abernathy and Kirkpatrick's No. 1 Gregston, M. Dillard Sur. ....Drlg. 3,612 ft.

E. A. Payne et al's No. 1 R. M. Woods, 20 ft. from S line and 31 ft. from W line of 2.13-ac. lease, H. R. Holit Sur. ....Derrick.

Petroleum Finance Co.'s No. 1 C. C. Crews, W offset to Sinclair Prairie's No. 24 Cole, L. Perkins Sur. ....Derrick.

Producers Investment Co.'s No. 1 R. H. Rowland, 150 ft. SW of Crim's No. 1 Producers, M. V. Winkle Sur. ....Waiting on cmt. to set 3,502 ft.

Rio Oil Co.'s No. 1 Graves, 330 ft. from S line and 230 ft. from E line of lease, M. Irwin Sur. ....Drlg. 1,800 ft.

Frank Russell's No. 1 Crimm, center of one-half-acre tract, M. V. Winkle Sur. ....Drlg. 3,265 ft.

Rone Oil Co.'s No. 1 Finley and Thomas, 150 ft. from N line and 330 ft. from W line of 10-ac. lease, C. H. Alexander Sur. ....Waiting on cmt. to set; T.D. 3,-635 ft.

J. W. Sewall, Jr.'s No. 1 A. V. Bacle, center of N 3.64 acres of W 7.28 acres of N half of 29.13-ac. tract, D. Sanches Sur. ....Drlg. 400 ft.

Showers and Moncrief's No. 1 M. O. Sheppard, 200 ft. S of SW cor. of Shell's A. N. King lease, G. R. Rains Sur. ....Waiting on cmt. to set 3,497 ft.

Smith and Merriwinkle's No. 1 Jim Gray, west offset to Houston and Heep's No. 4 Hall, D. Dainwood Sur. ....Washing in; T.D. 3,699 ft.

J. B. Sowell's No. 1 E. L. Walker, 443 ft. N and 677 ft. W of Gulf's No. 2 Walker, John Tate Sur. ....Drlg. 3,470 ft.

H. K. Spear et al's No. 1 J. M. Dickson, center of 2-ac. tract, M. V. Winkle Sur. ....Swabbing 3,610 ft.

Sun Oil Co.'s No. 1 J. M. Campbell, 330 ft. from S line and center of E and W lines of lease, G. R. Rains Sur. ....Waiting on cmt. to set 3,497 ft.

The Texas Company's No. 1 Radford, 330 ft. N and 225 ft. W of SE cor. of 50-ac. lease, G. F. Penn Sur. ....Derrick.

Tulsa Oil Co.'s No. 1 J. W. Fuller, 330 ft. from S line and 200 ft. from W line of lease, D. Sanches Sur. ....Rig up.

Viscan Oil Co.'s No. 1 A. M. E. Church, 500 ft. N and 175 ft. E of Gulf's No. 6 Culver, John Wilkerson Sur. ....Derrick.

Winona Oil Co.'s No. 1 Sumi-Wells, 330 ft. from S and E lines of tract, 550 ft. from S line of survey, J. M. Morris Sur. ..... S.D. 2,500 ft.
Zion Oil Co.'s No. 1 Barnett, 260 ft. from E and W lines and 330 ft. from south L of lease, E half of W 50 acres of 150-ac. tract, Jacob Taylor Sur. .... Drlg. 3,717 ft.

HENDERSON COUNTY

B. L. Green et al's No. 1 M. H. Gussett, (old well drilled deeper), 150 ft. from N line and 1,000 ft. from W line of 105.5-ac. tract, 3 miles SW of Mabank, L. D. Stover Sur. ..... Drlg. 2,010 ft.

HILL COUNTY

Sherman-Houseman's No. 1 J. F. Griffith, in Samuel Waddell Sur. ..... Fishing 3,256 ft.

HOPKINS COUNTY

Roark et al's No. 1 Taylor, 220 ft. from N and W lines of 80-ac. tract in the John Polk Sur. ..... S.D. 540 ft.

HOUSTON COUNTY

Nelson's No. 1 Harron, 300 ft. out of NE cor. of 327-ac. tract, J. P. Procella Sur. ..... Spudded and S.D. 37 ft
T. B. Roberts' No. 1 Pennington, 750 varas W of E line and 500 varas from S line of survey on 136-ac. tract, Ramond LaGarsa Sur. ..... T.D. 2,660-66 ft.

HUNT COUNTY

Branson et al's No. 1 Gray ..... Location.
Russell et al's No. 1 Brooks and Quattlebaum ..... S.D. 1,455 ft.

KAUFMAN COUNTY

Standy Darnell et al's No. 1 Sally Pannill ..... S.D. 2,020 ft.

LAMAR COUNTY

G. W. Davy et al's No. 1 McGustion, 450 ft. from S line, 450 ft. from W line of farm and survey, Galet Wood Sur. ..... Temp. abnd. 3,605 ft.
Doyle and Jondeau's No. 1 Martin, 990 ft. from N line and 330 ft. from E line of tract, Joseph Deck Sur. ..... S.D. 2,446 ft.
Doyle and Jondeau's No. 1 Horn, 226 ft. from S line and 605 ft. from E line of lease, R. P. Mayor Sur. ..... T.D. 2,890 ft.; S.D.

LEON COUNTY

Alladay et al's No. 1 W. R. Thompson, 330 ft. from N line of survey and 330 ft. from E line of 98-ac. tract, N. M. Allen Sur. ..... Location.

MORRIS COUNTY

Leonard's (Tucker-Fullwood) No. 1 P. M. Staggers, 450 ft. from N line and 150 ft. from E line of 65.5-ac. tract, J. D. Nelson Sur. ..... Swabbed little gas; repairing rig and liner; T.D. 3,567 ft.
Geo. L. Pace's No. 1 Walcott, 330 ft. from N and E lines of most northerly NE cor. of survey, 3 miles S of Carson, D. A. Russell Sur. ..... S.D. 48 ft.

NACOGDOCHES COUNTY

Adams et al's No. 1 Fuller Brothers, located in a 269-ac. tract, Jose Flores Sur. ..... Location.
Taylor-Vaughn's No. 1 Dixon Greer, 160 ft. from W and 450 ft. from N lines of 60-ac. tract in the M. G. Herrera Sur. ..... S.D. 265 ft.

POLK COUNTY

Collins and Plummer's No. 2 Collins, 7 miles SE of Livingston ..... Drlg. 3,390 ft.
Taylor et al's No. 1 E. L. Duke, 330 ft. from N and W lines of 23.5-ac. tract, SW cor. of county, Peter J. Manard Sur. ..... Rig up.

RAINS COUNTY

C. H. Bayliss' No. 1 Ownby, 150 ft. N and 1,100 ft. from E of most easterly SE cor. of survey, Alexander Sur. ..... Drlg. 4,100 ft.

RED RIVER COUNTY

Hoffman and Henson's No. 1 H. H. Lennox, 2,790 ft. W and 300 ft. S of most easterly NE cor. of survey, J. E. Edmondson Sur. ..... S.D. 60 ft.
Concord Oil Co.'s No. 1 J. R. Dellahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ..... S.D. 2,546 ft.
L. O. Priest's No. 1 W. C. Ware, 3¼ miles SE of English, 987 ft. from most southerly S line and 150 ft. from most easterly E line of 103.2-ac. tract, James Burkham Sur. ..... Drlg. 350 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 69-ac. tract in W. M. Bird Sur. ..... Set 10-in. csg. 120 ft.

RUSK COUNTY

Adams and Lyles' No. 1 Allen Kersh, 330 ft. from N line and 179 ft. from E line of lease, E. B. Fowlkes Sur. ..... Drlg. 3,634 ft.
Brooks Petroleum Co.'s No. 1 Mayfield, Daniel Clark Sur. ..... Top sand 3,632 ft.; waiting on standard rig; would not flow; T.D. 3,702 ft.
T. E. Castle's No. 1 R. H. Gary estate, 3,960 ft. from N line and 5,280 ft. from W line of survey, 10 miles S of Henderson, A. Latham Sur. ..... S.D. 1,875 ft.
G. & A. Oil Co.'s No. 1 W. Robinson, 321 ft. from S line and 330 ft. from W line of lease, T. J. Martin Sur. ..... Fishing for drill stem 3,440 ft.
J. E. Crosbie's No. 1 Homer Leach, 330 ft. from W line of lease and center of N and S lines of 51-ac. lease, J. C. Barnett Sur. ..... Swabbing 3,599 ft.
DeArman Bros.' No. 1 John Bell, center of S 5 acres of E 10 acres of 37-ac. tract, S. P. Hollingsworth Sur. ..... S.D. 2,870 ft.
Falcon Oil Co.'s No. 1 McCord, 322 ft. from S line and 168 ft. from E and W lines of 10-ac. lease, J. B. De Cadena Sur. ..... Drlg. 3,560 ft.
Gant and Garwin's No. 1 W. P. Moore, 330 ft. S and E of SW cor. of Arkansas, W. P. Moore 40-ac. tract, M. V. Pena Sur. ..... Location.
Graner Oil Co.'s No. 1 P. C. Warren, 700 ft. W of Cameron Oil Co.'s No. 1 Warren, John Womack Sur. ..... Rig up.
J. Guinn's No. 1 Neal Cooper, center of Blk. No. 36, T. J. Moore Sur. ..... Running tubing.
Harris and Russell's No. 1 T. W. Harris, 330 ft. from S line and 660 ft. from W line of most southerly SW cor. of 160-ac. tract, 3 miles SW of Henderson, W. G. Davis Sur. ..... Derrick.
Hasting and Dodson's No. 1 E. B. Alford, center of Blk. No. 37, T. J. Moore Sur. ..... Derrick.
Hathaway et al's No. 1 Gray, J. M. McLain Sur. ..... Waiting on cmt. to set 3,130 ft.
Helden-Rodgerson et al's No. 1 Barton and Birdwell, N offset to Reisinger et al's No. 1 Barton, W. G. Tutt Sur. ..... T.D. 2,779 ft.
Hendershot et al's No. 1 Green Washington, 330 ft. from N line and 350 ft. from W line of 11.75-ac. tract, D. Clark Sur. ..... S.D. 2,400 ft.
House and Wilder's No. 1 Reddic, 330 ft. from S and E lines of S 16 acres of Reddic 99.5-ac. tract, T. Grace Sur. ..... Rig up.
W. C. Know's No. 1 W. D. Peterson, center of 2.75-ac. tract, Jacob Lewis Sur. ..... S.D. 2,200 ft.; rig moved off.
Mid-Kansas Oil & Gas Co.'s No. 1 M. A. Price, 210 ft. from N line of road and 330 ft. from W line of lease, J. B. De Cadena Sur. ..... Derrick.
J. J. Mundy's No. 1 Wood, 330 ft. S and W of SE cor. of Butler and Calhoun's Lowe lease, W. G. Tutt Sur. ..... Rig up and S.D.
Oil Properties Corp.'s No. 1 E. B. Alford, center of 3-ac. lease, Isaac G. Parker Sur. ..... Drlg. 2,730 ft.
R. R. Osborne's No. 1 Bell, 330 ft. from S and W lines of lease, S. P. Hollingsworth Sur. ..... Derrick.
Parkerson et al's No. 1 E. B. Alford, 150 ft. from S line and center of E and W lines of 2-ac. lease, I. G. Parker Sur. ..... Bldg. derrick.
Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ..... T.D. 3,323 ft.
Sabine et al's No. 1 J. R. Irion, 330 ft. from S and E line of 3-ac. tract, John Womack Sur. ..... Rig up and S.D.
Sampson and Crane's No. 1 T. H. Gill, located on 10-ac. tract offset to Houston and Karona's No. 1 Patterson, R. W. Smith Sur. ..... Rig up.
Snider and Spradner's No. 1 Brightwell, 660 ft. from S line and 150 ft. from W line of lease, R. W. Smith Sur. ..... Derrick.
Snyder et al's No. 1 H. P. Leverett, 330 ft. from S line and 167 ft. from W line of tract, J. Lindley Sur. ..... Derrick.
Souther Refining Co.'s No. 1 I.&G.N.R.R., 330 ft. SW along railroad from S line of Stanolind's lease, W. R. Cooke Sur. ..... Rig up.
Stanolind Oil & Gas Co.'s No. 1 W. R. McCord, 330 ft. from N line and 183 ft. from W line of 31.39-ac. lease, M. V. Pena Sur. ..... Drlg. 3,200 ft.
Stanolind Oil & Gas Co.'s No. 1 Willis Wooley, 330 ft. S and E of the NW cor. of 62½-ac. tract, T. J. Martin Sur. ..... Coring 3,588 ft.
W. L. Stearns' No. 1 Negro Church, center of tract, Juan Ximenes Sur. ..... Swabbing 3,685 ft.
Sun Oil Co.'s No. 1 Alph Lee, 2,323 ft. from E line and center of N and S lines of 94-ac. lease, Peter Tippe Sur. ..... Top sand 3,643 ft.; T.D. 3,661 ft.; swabbing.
Uscan Oil Co.'s No. 1 L. Morse, center of S 5 acres of East Texas Loan's 15-ac. tract, R. B. Smith Sur. ..... Drlg. 2,800 ft.
R. H. Vice's No. 1 Neal Cooper, 315 ft. SW along NW line of Cooper tract and 141 ft. SE at right angles, T. J. Moore Sur. ..... Waiting on standard rig, T.D 2,797 ft.
Watson and Butler's No. 1 G. W. Tippa, 330 ft. from S line and 600 ft. from W line of 15-ac. lease, H. M. Smith Sur. ..... S.D. 250 ft.
Nat Wiseman's No. 1 Thrash, 177 ft. S and 87 ft. E of NW cor. of 62.6-ac. tract and 2½-ac. lease, F. Cordova Sur. ..... S.D. 3,760 ft.; pulled in derrick.
Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ..... S.D. 1,465 ft.
York et al's No. 1 Worrell, 55 ft. from N and S line and 107 ft. from W line and 103 ft. from E line of lease, J. B. De Cadena Sur. ..... Set surface csg.

SMITH COUNTY

Byers et al's No. 1 Cole, 330 ft. from E line and center of N and S lines of lease, E. Daniels Sur. ..... Waiting on cmt. to set 3,757 ft.
Hooper et al's No. 1 Lule Jackson, 330 ft. S and 520 ft. E of most northerly SW cor. of Monroe Shell Robinson lease, E. Daniels Sur. ..... S.D. 2,600 ft.
Joiner et al's No. 1 C. S. Jackson ..... S.D.; swabbed dry; T.D. 3,985 ft. (corrected).
J. E. Lucas' No. 1 Henry Jackson, 150 ft. from N and E lines of 25-ac. tract, James Jordan Sur. .... Waiting on cmt. to set.
Robert S. Monroe, 330 ft. from S line and center of E and W lines of 12-ac. lease, D. Shaw Sur. ..... Waiting on cmt. to set 3,717 ft.
Rabe et al's No. 1 Bateman, 332 ft. from S line and 278 ft. from E line of 15-ac. lease, James Jordan Sur. ..... Derrick.
Sutton and Hawkins' No. 1 Church Lot, 210 ft. from S line and 180 ft. from W line of tract, James Jordan Sur. ..... S.D. 3,780 ft.
Alph Tillman et al's No. 1 Jessie Cole, 137 ft. from E line and 275 ft. from N line of 32-ac. lease, center of 5-ac. lease, James Jordan Sur. ..... Drlg. 3,000 ft.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ..... T.D. 4,212 ft.

UPSHUR COUNTY

Conservative Oil Co.'s No. 1 A. O. Phillips, 330 ft. from S line and 580 ft. from E line of 20-ac. lease, S. Harrell Sur. ..... Location.
Cranfill & Reynolds and Russ' No. 1 Williams, 330 ft. from S and E lines of lease, McKinley and Williams Sur. ..... Set csg.; T.D. 3,659 ft.
Grover Hart's No. 1 Allen, 330 ft. from S and E lines of lease, one-half mile W of Mountain, Gonzales Sur. ..... Derrick.
Hawkeye Petroleum Co.'s No. 1 L. L. Markey, 150 ft. from E line and center of N and S lines of 141.7-ac. tract, T. Hopkins Sur. ..... Derrick.
Pat Hudson et al's No. 1 D. F. Smith, 330 ft. out of SE cor. of W 100 acres of the N 200 acres of the 272-ac. lease, 3 miles E and 1½ miles N of Cranfill & Reynolds' No. 1 Rash, John Denson Sur. ..... Waiting orders 3,710 ft.
Maddox Development Co.'s No. 1 Willie Starr, 602 ft. from S line and 330 ft. from W line of 96-ac. tract, C. H. Cooper Sur. ..... Top sand 3,662 ft.; T.D. 3,666 ft.; drill stem test, showed 1,400 ft. oil and 30 ft. salt water in 45 minutes; waiting on cmt. to set.
Magnolia Petroleum Co.'s No. 1 L. Graves, 354 ft. from N line and S line and 1,017 ft. from E and W lines of lease, M. Irwin Sur. ..... Set csg. 3,606 ft.
Bob Manzell's No. 1 E. O'Byrne, 436 ft. SW along SE line of 256-ac. tract, J. M. Pineda Sur. ..... Drlg. 2,660 ft.
Peckham Oil Co.'s No. 1 E. H. Hampton, 330 ft. from S and E line of S 60 acres of E 150 acres of 192-ac tract, William King Sur. ..... Top sand 3,686 ft.; S.D. 3,688 ft.
Pitts et al's No. 1 H. Davis, center of 7.5-ac. lease, W. R. Stephens Sur. ..... Derrick.
Twin Oil Co.'s No. 1 Bonner, S offset to Island's No. 1 Bonner, I. McRae Sur. ..... Drlg. 1,400 ft.
Webster's No. 1 R. H. McClelland, 1,956 ft. E and 335 ft. S of NW cor. of 751-ac. tract, M. P. Del Torres Sur. ..... Derrick.
G. L. Wickliffe et al's No. 1 M. E. Florence, center of 41.5-ac. lease, M. Chandler Sur. ..... Top sand 3,754 ft ; S D

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 225-ac. tract, 2½ miles S of Canton, M. J. DeCadena Sur. ..... S.D. 2,405 ft.
Humble Oil & Refining Co.'s No. 2 L. A. Dowade, 508 ft. W of E line and 200 ft. N of S line, William Daniel Sur. ..... Drlg. 1,735 ft.
Kelly O. & G. Co.'s No. 1 Lemaford, center of Lemaford tract, John Conner Sur. ..... S.D. 2,300 ft.
Pure Oil Co.'s No. 2 Mirtie Elliott, 642 ft. E of W line and 250 ft. S of N line, R. H. Wiley Sur. ..... Location.
Pure Oil Co.'s No. 3 N. R. Blake, 901 ft. S of N line and 225 ft. W of E line of survey, J. Schmitz Sur. ..... Drlg. 2,100 ft.
Pure Oil Co.'s No. 3 H. P. Tunnell, 825 ft. W of E line and 660 ft. S of N line of lease, James Rose Sur. .... Location.
Pure Oil Co.'s No. 4 T. D. Miller 200 ft. W of E line and 250 ft. N of S line, John Walling Sur. ..... Location.
Pure Oil Co.'s No. 9 Ella York, 250 ft. S of N line and 200 ft. W of E line of tract, John Walling Sur. .... Location.
Van Oil Association's No 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... T.D. 2,850 ft.

WOOD COUNTY

De Canther's No. 1 N. L. McLain, 250 ft. from N line and 642 ft. from E line of tract, Sam Brooks Sur.... Derrick.
Talko Oil Co.'s No. 1 G. T. Ross, B. L. Smith Sur. ..... T.D. 3,158 ft.
Wood County Dev. Co.'s No. 1 Davis, approximately 150 ft. from S line of 160-ac. tract and 2½ miles S of Kantes in Sarah McDonald Sur. ..... S.D. 1,500 ft.

Steady Wildcatting Goes On in North Louisiana Mississippi and Alabama Districts

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., June 27.—An optimistic attitude continues to prevail in this division as reflected by steady wildcatting operations, particularly in the North Louisiana, Mississippi and Alabama districts. The nine completions reported during the last week consisted of four oil wells and four gas wells from widely separated areas and gave an impetus to an already extensive drilling campaign in the Zwolle area of Sabine Parish. North Louisiana led the several districts, furnishing all of the oil wells and two of the gassers. The Jackson Field in Mississippi reported two good gas wells, with the only dry hole from wildcat territory in southeastern Arkansas.

Zwolle District

The Zwolle chalk rock field came back into the spotlight during the week with three new producers, two of which were of the gusher type, and one of them adding an extension on the eastern flank. The best well from this area in several months was C. H. Tuttle's No. 2 Byrd, Section 7-7-10, which was estimated to be good for an open flow of 5,000 bbls. daily from 2,459 feet. Because of lack of storage and immediate pipe line connections, the well has been pinched in and is flowing at the rate of 1,750 bbls. daily through five-eighths inch choke. The new producer is a one-fourth mile extension to the east and is the first production in Range 10 on the eastern border of the field. In the extreme southeastern part of the field, north of Many, W. F. Lacey's No. 3 McNeely, Section 14-7-11, was completed pumping 150 bbls. daily from 2,558 feet. The western flank, southwest of the town of Zwolle toward Blue Lake, furnished one of the good flowing wells. Ben Merritt, trustee's No. 1 Nulton, Section 3-7-13, is flowing 37 bbls. per hour through three-quarter inch choke from 2,459 feet. This well, although only a one-quarter mile extension directly west, helps to prove up the consistency of this new producing area. For the first time in many months, a producer was completed in the proven area of Caddo Parish, the Simplex Oil Co.'s No. 1 Tourree-Glassell, Section 13-20-15, pumping 90 bbls. daily from 2,272 feet.

Both of the North Louisiana gas wells had a small initial flow, the Pyramid Oil & Gas Co.'s No. 2 Breard, Section 9-18-16, in the Greenwood area, western Caddo Parish, flowing 1,000,000 feet from a total depth of 2,755 feet. In the Union Parish area of the Monroe Field, the Inter-State Natural Gas Co.'s No. 2 Steele, Section 26-20-3e, had an initial flow of 4,500,000 feet of gas from 2,150 feet. The rock pressure registered 995 pounds. Both completions in the Jackson Field, Mississippi, were on the east side of Pearl River in Rankin County. James Alexander, trustee's No. 2 Fitzhugh, Section 1-5n-1e, gauged 44,800,000 feet of dry gas from 2,370 feet. In Section 11-5n-1e, Muse, Muse & Love's No. 1 Bradley was officially completed with a flow of 35,000,000 feet from 2,451 feet. This well came in more than a week ago making about 5,000,000 feet, but was allowed to flow open for several days, resulting in the increased flow.

Ashley County, Arkansas, reported the only failure of current drilling wells, but three other tests in that state were officially listed as dry after being inactive for more than a year. In the former county, D. S. Brooks' No. 1 Crossett Lumber Co., Section 31-15s-6w, was abandoned in salt water at 4,031 feet. This test topped the Nacatoch formation at 3,155 feet and had a small show of oil at 3,170 feet, but also showed salt water at that depth. Another slight show of dead oil was encountered at 3,559 feet and salt water sand at 3,794 feet which continued to the total depth. The other three tests which were listed as abandoned follow: Cleburn County, Donnelly & Carver's No. 1 Donigan, Section 33-11-9, junked and abandoned at 3,740 feet; Columbia County, Kendall Oil Co.'s No. 1 Fullenweider, Rhea & Kitchens, near Magnolia, abandoned at 814 feet; Yell County, Tegmeier & Lockett's No. 1 Falcon, Section 36-7-21, abandoned at 5,710 feet. Only a few wildcats are now active in this state, and with one exception have not developed anything of interest since spudding in. In Miller County, east of Texarkana, Fitzwater and others' No. 1 Beck, Section 33-15-26, has set 6-inch casing at 2,919 feet. The operators on this well report coring a saturated oil sand from 2,919-20 feet. The well is in the vicinity of the Lentz wells, drilled about two years ago and which had good showings of heavy gravity oil around this depth. In St. Francis County, Field & Jones failed to recover a core from 2,884-98 feet from their No. 1 White, Section 1-4n-2e, and are coring at 2,950 feet. In the same county, E. R. Henderson has set 10-inch casing at 513 feet and is drilling at 604 feet on his No. 1 Britton, Section 1-4n-1e. Drilling has been resumed on an old well in Washington County, Chase & Rogers' No. 1 Cunningham Section 14-15-32, is reaming to the bottom of the old total depth, 1,710 feet.

DeSoto Wildcat

This district's most interesting wildcat, the Standard Oil Co. and Pelican Natural Gas Co.'s No. 1 Sutherlin, Section 19-12-14, DeSoto Parish, was tested during the past week with disappointing results. The well developed a flow of 3,000,000 feet of gas but with a rock pressure of over 1,400 pounds from a total depth of 2,784 feet. The gas flow was killed with baroid and the test deepened. Several small streaks of sand with traces of oil have been cored below th gas show and the test is now coring at 2,842 feet. In Bienville Parish, the Black Lake Development Co. is making steady progress on its No. 1 Holton, Section 17-18-6. The test, now drilling at 1,775 feet, is about 8 miles southwest of the Sugar Creek Trinity gas field, near Athens, in Claiborne Parish. None of the other wildcats in North Louisiana are at interesting depths or testing, but operators are keeping in close touch with R. L. Gay's No. 1-A Long Bell Lumber Co., Section 10-8-13, several miles northwest of the Zwolle Field. This is the deepest test for that area and one of the few deep wildcats in North Louisiana. The last report gives the wildcat coring lime at 5,925 feet. A few miles west of Zwolle production and north of Blue Lake, Broderick & Calvert's No. 1 Costello, Section 2-7-14, tested dry at 2,392 and 2,415 feet. Although not on a direct line between the two producing areas, the test had been looked upon as a possible connecting link.

Only one new wildcat block was reported assembled in Louisiana and one in Alabama. Near the town of De Ridder in Beauregard Parish, the De Ridder Development Co. has set surface casing on its No. 1 McMahan, Section 33-2s-9w. A block of 17,000 acres has been assembled with a contract to make a 1,500-foot core test and with the possibility that at least three of these tests will be made. A well was drilled on the McMahan tract in 1904 and junked at 1,202 feet, but the operators claimed 2 feet of oil sand from 1,200 to 1,202 feet.

ALABAMA

Mobile County, in southwestern Alabama, will soon have two active wildcats in operation. J. C. Prine and others have spudded in and set 12½-inch casing at 240 feet in their No. 1 M.&O. Railroad, Section 33-2n-4w. A block of 10,000 acres has been assembled for the test. In the same county, the Ohio Oil Co. has rigged up and ready to spud in on its No. 1 James Bethel in Section 34-3s-2w. This company has a large block assembled and will make a 7,000-foot test if necessary. To the north of these operations in Clarke County, the Tidal Oil Co. and others have resumed drilling on their No. 1 Hobson, Section 33-6n-2e. The test is now drilling at 3,840 feet with no particular change in formation since starting up from 3,534 feet. An agreement has been made by those interested to carry the test to 4,000 feet.

Daily Average Runs

There was a net increase of 250 bbls. in the daily average runs from the fields of North Louisiana and Arkansas during the past week. Due to new production in Zwolle, North Louisiana increased 285 bbls. daily, but Arkansas had a decrease of 35 bbls. The daily average runs from the several pools were:

NORTH LOUISIANA

Caddo light	5,275
Caddo heavy	1,960
Cotton Valley	900
DeSoto and Red River	2,010
Elm Grove	230
Haynesville	4,310
Holly	280
Homer	2,860
Pleasant Hill	280
Sarepta-Carterville	950
Urania	3,640
Zwolle	7,140
Total	29,835
Total previous week	29,550
Increase	285

ARKANSAS

Champagnolle	1,870
El Dorado	3,020
Lisbon	510
Nevada	1,050
Smackover light	2,870
Smackover heavy	23,945
Stephens	710
Urbana	50
Total	34,025
Total previous week	34,060
Decrease	35
Total both states	63,860
Total previous week	63,610
Increase	250

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

BIENVILLE PARISH

Company, well, farm name, section and block— Remarks:

Blacklake Dev. Co.'s No. 1 Holston, 600 ft. W, 100 ft. S, NE cor. SE SE, Sec. 17-18-6 ..... Drlg. 1,775 ft.

CADDO PARISH

Pyramid O. & G. Co.'s No. 2 Beard, Sec. 9-8-16, 660 ft. S, 1,980 ft. W, NE cor. Sec. ..... Comp. 1,000,000 ft. gas 2,755 ft.

CALDWELL PARISH

Carter Bell's No. 1 Taylor, 150 ft. S, 150 ft. E, NW cor. NE SE, Sec. 17-14-4 ..... Drlg. shale 3,560 ft.

Hudson et al's No. 1 Burton, Sec. 35-12-2e ..... S.D. 2,950 ft.

CATAHOULA PARISH

National Drlg. Co.'s No. 1 Marsh McMiller, 70 ft. N, 100 ft. W, C, Sec. 36-9-6 ..... T.A. 3,097 ft.

DE SOTO PARISH

J. M. Bridges et al's No. 1 Joiner, 660 ft. S and E, NW cor., Sec. 33-11-12 ..... Derrick.

Coker et al's No. 1 Boone, 200 ft. N and W, SE cor. SW NW, Sec. 12-10-11 ..... Rigging up.

Donley & Chastain's No. 1 H. Smith, 325 ft. W, 600 ft. N, SE cor., Sec. 31-14-15 ..... Reaming to bottom 2,295 ft.

S. A. Guy's No. 1 Dowling, 469 ft. E, 382 ft. S, NW cor. NE, Sec. 31-14-14 ..... Drlg. chalk 2,160 ft.

E. T. Oakes' No. 1 R. H. Bryant et al, 200 ft. N and W, SE cor. NE NW, Sec. 30-13-15 ..... Coring 3,675 ft.

DeSoto Dev. Co.'s No. 1 Nickey, Sec. 7-13-12 ..... Derrick.

Rudesealc et al's No. 3 Naboes, Sec. 6-13-11 ..... Testing 1,310 ft.

Standard Oil Co. and Pelican Nat. Gas Co.'s No. 1 Sutherlin, 320 ft. N, 260 ft. W, SE cor. SW, Sec. 19-12-14 ..... Estimated 3,000,000 ft. gas 2,784 ft; arranging to deepen.

Walters-Nicholson, tr.'s No. 1 Jim Guy, Sec. 3-11-13 ..... S.D. 2,403 ft; repairing rig.

GRANT PARISH

Security Pet. Corp.'s No. 1 Swope est., Sec. 16-9-1e, 1,698 ft. N, 220 ft. E, SW cor. Sec. ..... W.O.S.R. 1,585 ft.

O. Robichaux's No. 1 T. M. Bradford, 1,870 ft. E, 314 ft. S, NW cor., Sec. 16-9n-1e ..... Location.

NATCHITOCHES PARISH

W. M. Coates' No. 1 Ross Olive, Sec. 19-9-10, 660 ft. S and E from cen. of Sec. ..... Drlg. 1,725 ft.

Dr. H. S. Gerson's No. 1 Smith, Sec. 11-10-8, 2,000 ft. N, NE cor. of irregular Sec. 10, in Sec. 11 ..... S.D. 1,875 ft.

R. A. Keaton's No. 1 Stephens, Sec. 25-10-6, 320 ft. N and W, SE cor. NW NW ..... S.D. 1,500 ft.

H. W. Perritt's No. 1 Cook, 165 ft. E, 105 ft. N, SW cor. NE SW, Sec. 3-8-9 ..... Drlg. chalk 2,530 ft.

H. W. Perritt's No. 2 Brown Lbr. Co., 300 ft. N and W, from center Sec. 29-3-9 ..... Drlg. shale 2,424 ft.

Sabine Bayou Dev. Co.'s No. 1,130 Caw, 330 ft. N and E, SW cor. SE, Sec. 9-12-5 ..... Rigging up.

Texana Oil Co.'s No. 1 Clark-Morris Lbr. Co., 878 ft. N, 660 ft. E, C, Sec. 23-5-6 ..... Washing to bottom 2,504 ft.

OUACHITA PARISH

Wilson & Mitchell's No. 1 Williams, Sec. 5-16-1e, 330 ft. E, 340 ft. S, NW cor. SW SE. ..... Drlg. 3,300 ft.

RED RIVER PARISH

C. F. Davis' No. 1 Pierson, 500 ft. S, 317 ft. E, NW cor. SW NW, Sec. 12-14-11 ..... Location.

(Continued on Page 71)

Revised Regulations for Control of Conroe Field Adopted by Texas Railroad Commission

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., June 27.—Revised regulations for the control of the new Conroe Field of Montgomery County which are being adopted by the State Railroad Commission following a hearing for operators in Houston Saturday place a still tighter clamp on the development of the district than the emergency restrictions put in force June 15. The new order, although in the main its provisions are much the same as the previous one, among other things makes additional limitations of drilling, being designed to eliminate from the start all unnecessary and wasteful development.

Under the new regulations the field will be developed on the basis of a maximum of one well to each 20 acres and in the enforcement of this program no locations will be permitted within 933 feet of another nor within 466 feet of a property line. The emergency order, which has governed the field since June 15, limited spacing only to 660 feet with locations 330 feet from a line, or on a 10-acre basis. A precaution also is being taken to prevent any evasion of this order by making the present acreage divisions the basis of the 20-acre spacing, forestalling any possible attempt on the part of operators to cut up their acreage into smaller tracts for the purpose of increased drilling.

The hearing, which was held before Lon A. Smith and E. O. Thompson, members of the commission, and R. D. Parker, supervisor of the oil and gas division, was marked by harmony throughout with no opposition being expressed to any of the proposed rules which were read and explained by W. F. Kanode, petroleum engineer for the Railroad Commission. Discussion by operators of the various rules was for the purpose of obtaining information rather than criticizing the suggested regulations.

Additional regulations as to well spacing, however, provide that within the townsite one well may be drilled to each town block. Some exceptions may be made to the 20-acre drilling provision in the case of small tracts, already existing, where property lines do not permit the proper spacing but where possible these tracts will be pooled.

Gas-oil Ratio

The revised regulations also set temporarily a maximum gas-oil ratio of 2,000 feet per barrel, this figure taking into consideration there might be 1,000 feet of gas in solution per barrel at the bottom of the hole and that 1,000 feet additional might be needed to lift the oil. As conditions of the field become more generally known the ratio probably will be reduced materially, it was intimated.

Changes made by the new regulations over the original emergency restrictions also require an increase in the minimum amount of surface casing from 850 feet to 1,400 feet. This amount of surface pipe is being ordered as a protection against pollution of the 1,200 and 1,300-foot fresh water sands. The surface pipe must be cemented with sufficient cement to fill at least 200 feet of the annular space behind the casing and above the shoe.

No proration of production is being put into effect at this time as the daily potential of the field has not reached 10,000 bbls., but members of the commission stated they would act if any waste were apparent. The gas production, however, is limited to that amount which can be utilized for lifting the oil within the gas-oil ratio requirements or for commercial or domestic consumption, although dry gas may be vented after recovery of gasoline content if the gasoline has greater value than the gas vented.

Operating Rules

The rules provide that gas measurements by wells must be reported to field representatives of the commission at least once a month, also all wells making at least 2 per cent water. Other restrictions have to do with mechanical phases of drilling, completion and producing of wells and elimination of fire hazards. These require the proper testing of the production string of casing and well fittings to withstand a pressure of 3,000 pounds before any well is completed; the use of adequate blowout preventers at all times when the drill pipe is out of the hole after a depth of 3,500 feet is reached; the setting of the production string within 50 feet of the top of the sand to be tested, the sand tested to be determined by coring or drill stem tests; the cementing of the casing with sufficient cement to fill 1,200 feet of the annular space behind the pipe above the plug; the running of tubing; the use of adequate separators or gun barrels and the completion of all wells within the townsite or on school lands or other small tracts through the separator or stock tanks; the completion of all wells within daylight hours and under permit from the Railroad Commission representatives after all requirements as to drilling and equipment have been met; the location of slush pits for cleaning wells at least 40 feet from the derrick and 150 feet from any other fire hazard; the location of boilers and electric generators at least 150 feet from a well; the taking of hole declination tests at intervals of not more than 500 feet under supervision of commission field men; no hole on a 20-acre spacing shall be more than 5 degrees off vertical, holes on tracts of 10 to 20 acres shall not be off more than 4 degrees, and on smaller tracts holes shall not be off more than 3 degrees; the erection of fire walls around all separators and tanks. Additional restrictions prevent the use of air or gas lifts although repressuring is not included in this regulation.

Twelve Rigs Running

Twelve rigs are actually running in the Conroe district at this time with derricks up for others and additional locations being made. Operations in themselves during the week were somewhat routine with no test yet near the interesting stage. However, Heep Oil Corp. has rebuilt derrick already over its No. 1 Cartwright, a wet gas well, and the well will be killed to deepen it in the producing horizon with a view to making it an oil producer. This well was completed early in April at a total depth of 5,078 feet, but since its completion developments in the area have indicated that possibly the well is barely in the top of the horizon from which two "black" oil wells, more recently brought in, are producing. The outcome of this deepening will be of particular importance in view of the uncertainty as to the nature of this well and also of the discovery well, G. W. Strake's No. 1 South Texas Development, which also is rated as a wet gasser at 4,991 feet and which also is believed by some to be only in the top of the pay. If both these wells can be made oil wells by deepening, the determination of the nature of the field will be facilitated.

New Tests Starting

New tests starting drilling since last reports include Alpha Oil Co.'s No. 1 South Texas Development Co., 330 feet out of the southeast corner of the lease in the southeast Alex McCown Survey. This test is approximately midway between the two wet gas wells mentioned in the above paragraph, the Heep well being about a mile and a half northeast of the Strake discovery well. Drilling also has started in Steinberger and associates' No. 1 Steinberger, an east outpost test; Strake Oil Corp.'s No. 3 South Texas Development, a southwest outpost test; Heep Oil Corp.'s No. 1 Brent, on the extreme northeast, and the same company's No. 1 Hamman, on the extreme south.

Among important trades reported as being made during the week was the sale by George Bevier and associates of the south 200 acres of the Bevier fee tract in the Ransom House Survey, southeast of the field to Humble Oil & Refining Co. While actual completion of the deal has not been confirmed, the consideration is reported as being approximately $250 an acre with a one-twenty-fourth overriding royalty and a 30-day drilling obligation. Negotiations for the trading of various other important properties to major companies still were reported as being under way but not actually completed.

Both of the two oil producers so far completed at Conroe are standing shut in pending pipe line connections. Humble Pipe Line Co. is rushing work on its 8-inch line to Satsuma on its main trunk system but it will be at least another two weeks before that line can be completed and put in operation.

Rabbs Ridge

In the salt dome district, Gulf Production Co. and Humble Oil & Refining Co. have completed another important extension to the Rabbs Ridge Field, Fort Bend County, in their No. 1-A Booth, which came in flowing 57 bbls. hourly, 630 pounds pressure, through a three-eighths-inch choke, from sand at a total depth of 5,156 feet. This well is on the extreme north end of the field

Barbers Hill

At Barbers Hill, Chambers County, Texas Gulf Producing Co.'s No. 10-B Kirby, northeast flank, has been completed in the shallow Miocene sand at 4,354-76 feet flowing 1,400 bbls. of pipe line oil, 265 pounds pressure through a five-eighths-inch choke.

Mykawa

Crown-Framer Oil Co. got its second well at Mykawa, Harris County, with the completion of No. 2 Minnetex flowing 200 bbls. daily, 225 pounds pressure, through a one-half-inch choke, from sand at a total depth of 4,845 feet. The first well, No. 1 Minnetex, was completed in March. That well is a workover, it originally having been drilled and completed as No. 3 Minnetex by Humble Oil & Refining Co., which company later gave up its holdings in the area. The new well is the location made by Humble Oil & Refining Co. for its No. 5 Minnetex but abandoned undrilled.

Lake Washington Dome

A third producer has been added to the Lake Washington Dome, in southern Plaquemines Parish, Louisiana, by the completion of Freeport Sulphur Co.'s No. 1 Cockrell-Moran, which came in flowing 100 bbls. daily from the cap rock at 1,165 feet. The hole had been drilled to 1,548 feet and plugged. This well is 1,951 feet north and 582 feet east of Humble Oil & Refining Co.'s No. 4 Cockrell-Moran, the discovery well, completed in June, 1931, and which is the nearest production. All production so far is from the shallow cap, the first two wells being drilled by Humble Oil & Refining Co., joint owner of the dome with Gulf Production Co. and Shell Petroleum Corp. The Freeport Sulphur Co.'s well was started as a sulphur test under lease for the sulphur rights from the three oil companies.

Darrow Dome

Rio Bravo Oil Co. has completed a trade with Gulf Refining Co. of Louisiana for a half interest in 4,000 acres of

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Gulf Coast Fields and Wildcats

Week Ending June 25

RACCOON BEND—AUSTIN COUNTY

Company, farm and location—	Remarks:
Humble O. & R. Co.'s No. 2 McCasland, Wm. C. White Sur., 600 ft. southeasterly along SW line from NW cor. thence 200 ft. northeasterly at right angles	Drlg. sandy shale 3,552 ft.

BARBERS HILL—CHAMBERS COUNTY

R. E. Ferrell's No. 3 Wilburn, Henry Griffith League, 315 ft. W of No. 1 in center of 45-acre tract	Lime 2,527 ft; waiting orders.
Humble Oil & Ref. Co.'s No. 1 Kirby, Henry Griffith League, 530 ft. N along E line from SE cor. of tract, thence 75 ft. W at right angles, thence 75 ft. N at right angles	Location.
McAlbert Oil Co.'s No. 2-B Higgins (W.O.), Wm. Hodges Sur., 265 ft. from N line and 50 ft. from Wline of tract	Cutting and pulling screen to deepen 5,197 ft.
Mills Bennett Prod. Co.'s No. 4-A E. W. Barber, Henry Griffith League, 300 ft. W of No. 3-A, 50 ft. N of S line	Drlg. salt 3,197 ft.; top of salt 1,427 ft.
Mills Bennett Prod. Co.'s No. 3 Kirby, Henry Griffith League, 645 ft. E, 40 ft. S, NW cor. of tract	Drlg. salt 2,349 ft.; top of salt 1,395 ft.
Mills Bennett Prod. Co.'s No. 4 Means, Henry Griffith League, 150 ft. W of No. 3	Drlg. salt 2,726 ft.; top of salt 1,407 ft.
Moody Corp.'s No. 1 Ilfrey (W.O.), Henry Griffith League, 50 ft. from N line and 50 ft. from W line of tract	Set 57 ft. of 3-in. (O.D.) screen 5,308 ft.
Rio Bravo Oil Co.'s No. 2 Fisher, Wm. Bloodgood Sur., 200 ft. E and 33 ft. S of NW cor. of tract	Drlg. rock 4,225 ft.
Sinclair Oil & Gas Co.'s No. 3 Wilburn (D.D.), Henry Griffith League	Drlg. shale 4,382 ft.

(Continued on Page 73)

A "Hot Spot" is a Trouble Spot until BYERS Genuine Wrought Iron is installed

SOME "hot spots" are so obvious that wrought iron should be installed when the line is constructed. Places like river crossings, salt marshes, and alkaline soils are born trouble spots. In places, less obvious, where bitter experience has proved the short life and high replacement cost of less durable pipe material, turn to Byers Genuine Wrought Iron as a trouble antidote.

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Kansas Wildcat Tests Indicate a Large Number Of Counties Engaged in Future Activities

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

The daily average production of crude oil in Kansas increased approximately 2,000 bbls. daily during the week ending June 25, to a daily average of 98,200 bbls. The increase was mostly due to new production in Harvey County and to the Carter Oil Co. and others' No. 1 Ploog in Section 33-18-9w, which was opened up and produced after being shut in for about two years.

Another chat producing area was opened in Sedgwick County by a semi-wildcat northeast of Wichita. H. H. Patton and others' No. 2 Swanson, C NW NE, Section 6-26-2, found the chat at 2,988 feet, where oil rose to the top of the hole in a few minutes. The owners plan to land the 3-inch tubing preparatory to pumping the test as it will not be swabbed. A gauge of the production will be available in a few days. It is the second well drilled on the same land. The first was drilled in the NW cor. NE, Section 6-26-2, about three years ago, but was plugged after the well swabbed 60 bbls. of oil and about 400 bbls. of water a day for several weeks. Offset wells to the north and west of the discovery were both dry holes and interest in the area subsided. The new well indicates the structure is to the east of these other wells. This well was drilled with a machine and rapid time was made. It required only 33 days to complete the well to the chat formation. The well is located about 6 miles east of the Wright Pool, at Valley Center, and about 4 miles northwest of the Greenwich Townsite Pool.

New Well in McPherson Pool

The seventh well in the McPherson Pool, in McPherson County, extended production a mile to the east. It was The Texas Company's No. 1 Tipton, NW cor. NE, Section 2-20-3w, which is rated at 30 bbls. of oil per hour from the chat at 2,990-3,035 feet. With the oil production is about 5,000,000 feet of gas a day, resulting in the well flowing its production, making it unnecessary to pump the well. The well will be put on steady production as soon as a market outlet is found. The McPherson Pool is without any pipe line at this time and all the companies with production in the area are beginning to realize the urgent need of facilities to handle the production. Numerous offset tests are now forced with the completion of this well as a producer. The Shell Petroleum Corp. has the west offset, and on the north the Indian Territory Illuminating Oil Co. will be forced to drill a well.

Two Promising Areas

At this time Kansas has two areas that look promising for oil and gas, and it is expected a large amount of drilling activity will be started. One of the areas is in southern McPherson County and the other in the northwestern part of Harvey County.

The McPherson County area includes the territory south and southwest of the Voshell Pool and the Harvey County area is in the vicinity of the Hollow Pool, which is expected to reach over into northeastern Reno County.

This proposed development is the result of recent oil discoveries in those areas and of a large number of short term leases, especially in the McPherson County area. The recent large production found in the Hunton lime in Harvey County, has increased the interest in that area. The recent chat wells found in the McPherson County area are the largest producers yet found in the vicinity of the Voshell Pool.

The new wells in the northwestern part of Harvey County are being given a pipe line connection. The Skelly Oil Co. connected to the tanks of W. C. McBride, Inc.'s No. 1 Friesen, and plans to connect to the Stanolind Oil & Gas Co.'s well.

Mabie Drilling Co. and Shell Petroleum Corp.'s No. 1 Martens, NE cor. SE, Section 19-22-3w, was preparing to spud with rotary tools. It is the southwest offset to the discovery well in the Hollow Pool, in Harvey County.

Western Gasoline Co.'s No. 1 Wall, NW cor. SW SE, Section 21-21-3w, McPherson County, in the south extension area of the Voshell Pool, was given a potential test and made 333 bbls. of oil in 13 hours flowing naturally. At this rate the well would make 625 bbls. of oil a day. The well is expected to be put on the pump in the near future.

Hollow Oil Co.'s No. 1 Church acre, SW cor. NW, Section 20-22-3w, the discovery well in the Hunton area of Harvey County, was drilled 3 feet deeper and flowed 676 bbls. of oil in 13 hours, from a total depth of 3,514 feet. The well was drilled deeper because the Mid-Kansas Oil & Gas Co.'s offset was a large well from the lower level.

Interest in the McPherson Pool continues with two drilling wells finding the chat formation high. It is expected that both of these tests will make large wells when completed. Mid-Kansas Oil & Gas Co.'s No. 1 S. Etter, NW cor. NE SE Section 3-20-3w, found the top of the chat at 2,964 feet, where a showing of gas was found. The same company's No. 1 C. W. Helstrom, NE cor. NW Section 35-19-3w, found the top of the chat at 2,974 feet, and a showing of gas. It is believed the finding of the chat so high in these wells indicates that the trend of the pool is from the southwest to the northeast, and that large wells may be found farther south and west of the present producing wells.

Both of these tests are expected to be ready to drill deeper after the casing has been landed and cemented on top of this formation.

F. Whan and others' No. 1 Dixon, NW cor. SW Section 7-19-2w, a wildcat north of production in the McPherson Pool, was standing full of oil from the chat at 2,964-96 feet. It is estimated by the owners as a 200-bbl. well.

All of these tests are expected to make producers and they will force offsets to be drilled shortly.

Big Well in Stratman Pool

The seventeenth well in Ellsworth County is believed to be one of the largest yet completed in that county. J. A. Aylward and Eldorado Refining Co.'s No. 5 Stratman, in Section 1-17-10w, has a potential of better than 2,000 bbls. a day. It made 125 bbls. of oil an hour on a recent swabbing test.

An interesting wildcat test is logging higher than any other test yet drilled in western Rice County, or in the southwestern part of Ellsworth County. The test is Slick, Pryor & Lockhart, Darby Petroleum and others' No. 1 Orth, SE cor. NE Section 27-18-10w. It was drilling at 2,650 feet on the last report. It has been logging about 60 feet higher than the Carter Oil Co. and others' No. 1 Ploog, in Section 33-18-9s, Rice County, which is estimated at 2,000 bbls. a day, and about 30 feet higher than the Heiken well.

Test Block in Cowley County

In Cowley County, Mid-Kansas Oil & Gas Co. has a rig up for No. 1 Rogers, NW cor. NE SW, Section 7-31-5. It is a new wildcat operation on a block of 1,800 acres on which the geology is regarded as excellent. The test will be drilled to the Silicious lime unless production is found in the Bartlesville sand. A test that was drilled in Section 17-31-5, found a showing of oil in the Bartlesville sand, and the Trees Oil Co.'s No. 1 Miller, in Section 13-31-5, also found a showing of oil in the Bartlesville sand. The Mid-Kansas Oil & Gas Co.'s test will attempt to locate the trend to the north.

Ship Oil to Canada

Crude oil from Kansas is to be shipped to Canada from wells in the Sharpe Pool, in Rice County, by the Empire Oil & Refining Co., part owner of these producers. Empire Oil & Refining Co. and Wertheim Brothers drilled two wells offsetting the discovery well in the Sharpe Pool, and both of these wells are estimated at better than 1,000 bbls. a day, while the discovery well, Hinkel and others' No. 1 Sharpe, is making a small amount of oil and water daily. A 3-inch pipe line is to be constructed from the wells to a Santa Fe sidetrack and loading rack at Chase, large enough for three tank cars, where the crude oil will be loaded out and shipped. It is expected to be completed in a short time. It is believed because of the oil being exported from the United States it is probable that no move will be made by the Kansas Public Service Commission to operate these wells providing the crude oil is purchased ratably from all the completed wells in the pool.

Another test may be drilled on acreage west of the two Empire Oil & Refining Co. producers, the new test being located in the NW cor. SW, Section 18-20-10w.

Gas wells in Rush County in the central western part of the State are without a pipe line connection and are shut in. It is estimated that these wells could produce an open flow of 125,000,000 feet of gas a day. There are a number of locations near these wells that are proven and additional gas could be found if needed.

Walker Oil Corp. and others' No. 1 Remley, SW cor. SE NE, Section 23-14-7w, Ellsworth County, is a wildcat location on a block of 10,900 acres of leases. Material was being moved to the location during the week and the rig is expected to be completed in a few days. The test is located in the northeastern part of the county near the Lincoln County boundary line.

Drilling activities along the Barton-Ellsworth arch in Ellsworth, Rice, Barton and Stafford Counties are being delayed for lack of a market. The majority of the completed wells in that area are shut in awaiting a pipe line connection. On June 1, there were 36 oil wells in these counties with a potential of 42,470 bbls. of oil a day, and 20 of these wells were shut in on that date. The other completed wells were being produced at the rate of 5 per cent of their potential production. This area was served by loading racks, as the only pipe line into the area is that of the Sinclair Prairie Pipe Line Co. into the Schurr Pool, in Rice County. The majority of the loading racks are inactive.

The shut in pools include Heiken, Stoltenberg, Stratman, Sharpe, Greenawalt and Richardson areas. Markets have been found for the production in the Ploog area in Rice County and the Stratman area in Ellsworth County. The Isern Pool in Barton County, and the Schurr Pool in Rice County, have been granted an allowable of 5 per cent of the potential.

Cowley County

Fern Oil Co.'s No. 1 Gardenshire, NW cor. SW Section 22-32-4, is a location. Mid-Kansas Oil & Gas Co.'s No. 1 Rogers, NW cor. NE SW Section 1-32-6, is a rig. McNabb and others' No. 3 Hutton, SW cor. SE NE Section 27-32-4, made 75 bbls. of oil and 25 bbls. of water from the pay at 2,391-2,419 feet.

Ellsworth County

Walker Oil Co.'s No. 1 Remley, SW cor. SE NE Section 23-14-7w, is a rig.

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location—	Remarks:
Midwest Ref. Co.'s No. 7 Scheufler, C SW SE Sec. 9-20-11w	Drlg. 2,645 ft.
Skelton Oil Co.'s No. 1 Ott, C SE SE, Sec. 16-19-14w	Set liner 3,530-46 ft.; show oil; C.O. 3,600 ft.

BUTLER COUNTY

Cameron-Great Basin Oil Co.'s No. 1 Lardson, C SE NW Sec. 13-28-2	Spudding.
Ramsey's No. 1 Michael, SW NW NW Sec. 18-27-3	Drlg. 1,090 ft.

CHASE COUNTY

Ryan et al's No. 1 Lipp, C SE Sec. 35-18-6	Drlg. 410 ft.

DICKINSON COUNTY

Severe et al's No. 1 Lavengood, NE SW, Sec. 13-13-2	S.D. 4,752 ft.

EDWARDS COUNTY

Mid-Kansas O. & G. Co.'s No. 1 Converse, SW NE NE. Sec. 30-24-18w	Drlg. 3,828 ft.

ELLSWORTH COUNTY

Walker et al's No. 1 Remley, SW SE NE Sec. 23-14-7w	Rig on ground.
Slick et al's No. 1 Dreford, SW NW Sec. 7-17-10w	Drlg. 370 ft.
R. Gear et al No. 1 Kroboth, SE NW Sec. 12-15-10w	S.D. 50 ft.
Johnson Vickers' No. 1 Claussen, C SE NW Sec. 31-15-10w	Drlg. 2,750 ft.
R. Gear et al's No. 1 Sanberth, C SW SE, Sec. 29-16-9w	S.D. 50 ft.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 34-8-25w	Rig.

FINNEY COUNTY

National Ref. Co.'s No. 1 Wells, C SW, Sec. 13-23-33w	U.R. 8-in. csg. 5,030 ft.

HARVEY COUNTY

D. R. Louck's No. 1 Regier, SW SE NW, Sec. 9-22-2w	Drlg. 2,881 ft.
J. Liggett et al's No. 1 Vessel, NE SW, Sec. 3-22-3w	Location.
Liggett et al's No. 1 Davis, SW SE NE, Sec. 7-24-1	S.D. 2,500 ft.

KINGMAN COUNTY

Panhandle Drlg. Co.'s No. 1 Wetheral, C SE NW SW, Sec. 29-28-10w	12-in. csg. 1,610 ft.; S.D.

McPHERSON COUNTY

Snyder et al's No. 1 Carlson, SE cor. Sec. 4-19-3w	S.D. 450 ft.
Detrick's No. 1 Dalke, NW SE Sec. 16-19-1	S. D. 50 ft.
Sidwell et al's No. 1 Nichols, NE NW NW Sec. 18-17-1n.	Rig on ground.

(Continued on Next Page)

Gypsy Oil Co.'s No. 2 Stoltenberg, NW cor. NE SW Section 22-16-10w, made 200 bbls. of oil after two 40-quart shots in the sand at 3,337-58 feet.

Greenwood County

B. Young and others' No. 1 Myers, NE cor. SE Section 10-24-12, was drilling at 500 feet. York State Oil Co's No. 1 Morgan, NE cor. Section 35-24-10, was abandoned at 2,000 feet. Gore-Phillips Petroleum Co.'s No. 5 Beal, SE cor. SW NE Section 28-23-11, was abandoned after shooting with 80 quarts in sand at 1,953-71 feet. York State Oil Co.'s No. 12 Westcott, C E L W half NW Section 33-22-11, made 100 bbls. of oil after a 60-quart shot in sand at 1,925-2,003 feet.

Harvey County

Olson Drilling Co. and Shell Petroleum Corp.'s No. 1 Krehbeil, C SW SW Section 19-23-3w, was completed for a 216-bbl. well in chat at 3,280-3,373 feet. Joe Liggett and others' No. 1 Voshell, NE cor. SW Section 3-23-3w, is an abandoned location.

McPherson County

Mylins-Empire Oil & Refining Co.'s No. 1 Rigier, SE cor. SW Section 16-21-3w, is a location. Gypsy Oil Co.'s No. 2 Stoltenberg, NE cor. Section 33-20-3w, is drilling at 500 feet. Derby Oil Co. and Sinclair Prairie Oil Co.'s No. 1 Lacquement, NE cor. NW SE Section 20-19-1w, an old well drilled deeper, at total depth of 2,959 feet, was rigging up. Sidwell and others' No. 1 Nichols, NE cor. NW NW Section 28-17-1w, was spudding.

Sedgwick County

Shell Petroleum Corp.'s No. 4 Fisher, SW cor. NW SE Section 15-26-2, was completed for 590 bbls. of oil from the pay at 3,204-08½ feet.

Reno County

Olson Drilling Co. and Shell Petroleum Corp.'s No. 1 Roberts, C NW NW Section 25-23-4w, made 190 bbls. of oil from the chat at 3,262-76 feet. Same operators' No. 1 Krehbiel, C NE NE Section 26-23-4w, made 450 bbls. of oil and 14,000,000 feet of gas a day from the chat at 3,257-84 feet.

Woodson County

Moore & Ellis' No. 1 Berry, NW cor. SW NW Section 26-23-13, was spudding. Theta Oil Co.'s No. 1 Shaffer, SW cor. SE Section 31-23-14, was rigging up.

Gulf Coast Fields

(Continued from Page 50)

the latter's holdings on the Darrow geophysical salt dome prospect in Ascension Parish. The former company is obligated to drill one test to 5,000 feet unless production is encountered at a shallower depth and thereafter the carrying on of development is optional with the former. Rio Bravo Oil Co. already has made location for the deep test, it being 200 feet from the north line and 1,500 feet east at right angles from the SW cor., Section 15-10s-2e, on a pooled community lease.

Darrow was discovered in 1927 by Gulf Refining Co. as a result of geophysical exploration. That company has drilled one test, abandoned in December, 1929, after testing salt water at 5,575 feet. Location of that test, No. 1 Belle Helene, was on the north side of the prospect. The Rio Bravo test is believed to be located about on top of the dome, if one exists. Two other tests have been started on the prospect by other companies, one of which was junked at 4,747 feet and the other abandoned at 3,778 feet. The first of the two was located some distance from prospect.

Matagorda County

United North & South Development Co.'s No. 1 Stoddard, a rank wildcat located near the Buckeye Townsite in the Kellar Survey, Matagorda County, and which is in a sand showing oil at a total depth of 7,831 feet, failed to flow when swabbed again the past week. Screen now is being cut and pulled and the condition of the screen will determine whether a new string of screen will be set at that depth or whether the hole will be cored deeper. This well has been trying to test for more than a month and on one occasion flowed a few small heads, enough to indicate the existence of a possible new field and stimulate operators to continued operation.

Newton County

Sun Oil Co. is building a road to its new wildcat location in southern Newton County, this location being No. 1 Peevey Moore Lumber Co., 2,145 feet from the south line and 1,225 feet from the west line of the F. Stoevar Survey, just a short distance north of the Orange County line. This is in what is known as the Gist area, a geophysical prospect checked some time ago. The test is the first drilled there.

Wildcat Operations in Kansas

(Continued from Preceding Page)

Simmons-Canary's No. 1 Krehbiel, SE NW Sec. 33-18-1w. Drlg. 2,235 ft.
Detrich et al's No. 1 Sinclair, SE SW, Sec. 25-19-1w..... Chat 2,926-60 ft.; Viola 3,414-18 ft.; Wilcox 3,535-38 ft.; water; abnd.

MORTON COUNTY

Hydraulic Oil Co.'s No. 1 State Land, NW SE, Sec. 22, 34-43w ..... T.D. 3,640 ft.; temp. abd.

MORRIS COUNTY

Crachel et al's No. 1 Bersuch, NW SE NW, Sec. 10-17-7 S.D. 915 ft.

NORTON COUNTY

Richards et al's No. 1 Colby, Sec. 17-4-21w ..... Rig.

OSAGE COUNTY

Briggs & Smith's No. 1 Wood, SE NW, Sec. 21-14-15..... S.O. 2,190-2,200 ft.; temp. abnd.

PHILLIPS COUNTY

Hall et al's No. 1 Donaldson, C NE NE, Sec. 25-5-18w... Fishing 3,365 ft.

PRATT COUNTY

Ninnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE, Sec. 25-27-11w ..... Rig.

RAWLINS COUNTY

J. G. Durham et al's No. 1 Weaver, SE cor., Sec. 3-2-35w.. S.D. 3,925 ft.

RENO COUNTY

National Union's No. 1 Hill, NE SE Sec. 18-24-4w..... Location.
Martin et al's No. 1 Yadu, C NW NW, Sec. 15-24-5w... S.D. 318 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w ..... Rig.
R. Ramsey's No. 1 Hutton, SW NE SW Sec. 6-20-9w.... Drlg. 1,100 ft.
Slick et al's No. 1 Arth, SE NE Sec. 27-18-10w..... Drlg. 2,190 ft.
J. Liggett et al's No. 1 Thodel, C NW NW, Sec. 11-21-7w. S.D. 50 ft.

RUSSELL COUNTY

J. Brennan's No. 1 Waly, CNL E½ NW, Sec. 29-13-11w Rig.

RUSH COUNTY

Rexilon et al's No. 1 Brock-Hartman, SW SE NE, Sec. 4-18-16w ..... S.D. 50 ft.

SALINE COUNTY

Twin Mounds Oil Co.'s No. 1 Weis, C W½ NE NW, Sec. 30-13-4w ..... Drlg. 3,150 ft.

SEDGWICK COUNTY

Miller et al's No. 1 Jones, SW cor. Sec. 28-27-1 ..... S.D. 1,560 ft.
Scroggins et al's No. 1 Bartlett, NW SE NW Sec. 35-27-1 ..... Drlg. 150 ft.
Pulsa Oil Co.'s No. 1 Levert, C SE SW, Sec. 8-28-2w.... Abnd. 3,440-60; water.

SHERIDAN COUNTY

Flo et al's No. 1 Shoemaker, SE SW, Sec. 27-7-26w .... C.O. 4,520 ft.

STEVENS COUNTY

Argus Prod.'s No. 2 Christopher, C NE, Sec. 10-33-39w... S.D. 5,521 ft.

SUMNER COUNTY

Trees Oil Co.'s No. 1 Tompkins, SW, Sec. 26-33-1..... Location.
Trees Oil Co. and Shell's No. 1 Springate, NE SE SW, Sec. 6-34-1 ..... S.D. 3,639 ft.

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Central Ohio Field Reports Gain in Completions Good Producer in Owensboro, Kentucky

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, June 27.—The Central Ohio Field had a larger number of completions than for a long period. Indiana and Illinois failed to report any new wells in and few are under way in Illinois. In Indiana, there are many wells drilling and others shut down.

In the old Lima Field of northwestern Ohio but two completions were reported, both in Hardin County. They are Bert Sheldon's test on the Ora Ruch farm, Section 31, Blanchard Township, which is a very light gas well from 1,300-39 feet, while Tragers heirs' No. 4 on the Augusta and Anna Trager farm, in Pleasants Township, same county, produced 1 bbl. the first 24 hours from 1,359-66 feet.

In the Tiffin Field, Green and others are drilling on the Mary McElhaney farm, Section 5, Hopewell Township, Seneca County. Industrial Gas Co. has about due for completion its second test on the M. W. Hunker farm, Section 2, same township. In Liberty Township, the same company is drilling a second test on the C. Swartzmiller, Section 35, and Cessna-Feasel Oil Co. is drilling a test on the J. R. Puffenberger farm, same township.

In Wyandot County, Tymochtee Township, Section 21, McPheron and others are about due to bring in No. 5 on the Bowman-Billhart farm, and R. W. Kirk and others are getting near pay sand in a second test on the Elmer E. Moser farm, Section 12, Ridge Township.

In Wood County, Pember & Reydner are drilling on the Ray and Ellsworth Wagner farm, Section 27, Jackson Township, in advance of production.

CENTRAL OHIO

In the Central Ohio Field an even dozen wells were completed, in eight different counties, none being considered large producers of oil and gas. Indications are for a pickup in work over the large producing area of the field.

In Ashland County, G. W. Heinrick and others drilled in a dry hole in a second test on the John G. Howe farm, Section 3, Ruggles Township. No shows of oil or gas were encountered in the Stray or Clinton formations at a depth of 2,424 feet. Eddy and others are still shut down at No. 4 on the Edward Gardner farm, Section 17, Perry Township, and Stewart and others are drilling No. 5 on the W. S. Brubaker farm, Section 29, same township.

In Lorain County, Ramage and Willis have a rig on the Francis E. Morgan farm, Lot 94, Eaton Township, and Wiser Oil Co. is drilling on the A. P. Squires farm, Section 12, Carlisle Township. C. J. Minor is drilling on the George Myers farm, Lot 41, Ridgeville Township, same county.

In Medina County, Harrisville Township, F. Bernhart and others' test on the W. P. White farm, Lot 17, produced 5 bbls. the first 24 hours at a depth of 473 feet.

In Holmes County Henry Garver drilled in a very light gas well on his own farm in Section 18, Killbuck Township, in the Berea sand from 584 to 590 feet. Lydick Oil & Gas Co. is drilling a second test on the Ralph Clinage farm, Section 20, Monroe Township.

In Richland County, the Commonwealth Gas Corp. has a fishing job on the Roy B. Dickson farm, Section 24, Jefferson Township, at around 1,800 feet.

In Knox County, H. E. Perkins' test on the H. L. Simpson farm, Lot 28, Howard Township, is reported dry in the Clinton lime from 2,628-41 feet. Reno Oil & Gas Co. is starting No 3 on the S. S. Day farm, Section 11, Jefferson Township, same county.

In Summitt County, Barnhart and others have a well started on the Hillside Country Club Co. land, Section 4, Richfield Township.

In Licking County, Earl Brothers' test on the Louisa J. Georgetti farm, Lot 3, Madison Township, is reported good for 4 bbls. from 697 to 701 feet. Whitmer & Clay have a nice gas well in No. 4 on the Lida Martin farm, Section 3, Perry Township, same county.

In Muskingum County the Atha Oil Co.'s test on the Arthur Taylor farm, Section 16, Union Township, is reported showing for a 20-bbl. producer in the Niagara lime formation, which was topped at 3,176 feet. Pure Oil Co. has an average gas well in No. 2 on the Scott-Hammond farm, Section 3, Brush Creek Township, same county, in the Clinton lime at 4,175 feet. Hopewell Gas & Fuel Co. is drilling No. 3 on the Daniel Weaver farm, Section 10, same township.

Tuscarawas County

In Tuscarawas County, Hopewell Oil & Gas Co.'s No. 1 on the J. C. and F. Daton farm, Section 21, same township, is reported showing for 25 bbls. in the Niagara lime at 3,418½ feet. Gordon Oil Co. is drilling No. 4 Dolly Hoffman farm, Lot 25, Washington Township in the same county.

In Stark County, Jackson Township, the Ohio Fuel Gas Co. struck a gas well in No. 2-5,647 William J. Hitz farm, Section 16, and the East Ohio Gas Co.'s No. 3 John Struble farm, Section 26, same township, is a gas well. Kime and others have a rig in for a second test on the Charles Oberlin farm, Section 6, same township. Ohio Fuel Gas Co. abandoned its location made for No. 1-5,548 on the John Wyles farm, Section 14, same township. In Plain Township, White and Bacon are drilling on the C. H. Corbett farm, Section 7.

In Guernsey County, William Blackstone and others have a rig on the Mary Secrest and others farm, Section 8, Spencer Township. E. C. Quillan and others are delayed by a fishing job on the A. K. and W. E. Shearer farm, Sec-

(Continued on Page 56)

Turner Valley Conservation Act Is Upheld Test to Be Carried to Privy Council

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, June 25.—Turner Valley conservation measures were upheld in a decision rendered this week by Justice Ewing at Calgary in the action by Spooner Oils, Ltd., against the Turner Valley Gas Conservation Board and the attorney general of Alberta. When the Turner Valley Gas Conservation Board last month issued its first order restricting the aggregate gas flow of the Turner Valley Field to slightly less than 200,000,000 feet a day, Spooner Oils, Ltd., one of the independent companies operating in the northern section of the Central Turner Valley area, brought action to test the validity of the legislation under which the board was constituted. The company claimed that the provincial gas conservation act was ultra vires, that it interfered with rights previously granted in leases issued by the federal government and that the order issued by the board was not in accordance with the terms of the act. It was claimed that enforcement of the proration measure would detrimentally affect Spooner Oils, Ltd., as well as allied refining interests dependent on the Turner Valley Field for crude naphtha. An interim injunction was granted by Justice Ewing in May, pending his disposition of the case at a special sitting of the Supreme Court of Alberta which took place early in June.

In the decision handed down this week Justice Ewing dismissed the action of Spooner Oils, Ltd. He held that the gas conservation act does not conflict with Dominion regulations and that in passing the act the province of Alberta did not exceed its authority. It was further held that the holders of old federal leases, issued prior to the transfer of natural resources to Alberta, were bound under the terms of their leases to prevent waste. Orders of the Turner Valley Gas Conservation Board, issued under the act, were held to be proper. Application for costs for the company was denied.

Following the decision of Justice Ewing, announcement was made by A. G. Spooner, president of Spooner Oils, Ltd., that the decision would be appealed. The appeal, it is understood, cannot be taken up before September; and as the test case will likely be carried to the privy council, a final decision may not be rendered till late in the year.

In the meantime, dismissal of the action apparently clears the way for the enforcement of conservation measures initiated by the board. Frank P. Fisher, technical adviser to the board, has announced that conservation orders would go into force immediately. These orders restrict gas production from Turner Valley to less than 200,000,000 feet a day, or considerably less than half the peak production. A measure of voluntary conservation has, however, been carried out by a majority of the operators.

President C. O. Stillman of Imperial Oil, Ltd., said his company would maintain its policy of operating as efficiently and economically as possible so that the resources of the field may afford the greatest benefit to all concerned. The company had already indicated its readiness to do its share in carrying out a conservation program.

"All who are interested should not overlook the benefits that will result to everyone, both consumers and producers, under the most economical operation," Mr. Stillman said. "If so operated the field will yield, over a period of years, a great deal more wealth than can be produced if there is no co-operation among the interests concerned.

McLeod Deep Test

In the Central Turner Valley McLeod Oil Co.'s No. 4 deep test, LSD 16, Section 1-20-3w5, is reported drilling below 6,150 feet. Apparently there has been some change in the formation, and samples are being tested to determine whether the drill has passed from the Banff shales into the Devonian limestone. A show of light crude, with possible production of 5 bbls. a day, was struck in the Banff shales at 5,860 feet; and in deepening additional showings have been encountered, but no large production. The outfit is running three tours a day with the hole reported in good shape for deeper drilling.

South Turner Valley

In South Turner Valley, Hylo Oils' No. 1, LSD 12, Section 4-19-2w5, is reported drilling in the lime around 5,575 feet, and getting close to the potential wet gas horizon. The test offsets Mercury Oils' No. 1 big producer, and a good producer is looked for.

In the far south, Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, is reported drilling below 3,894 feet. This is the farthest south active test, and if production is secured will considerably extend the proven area. A. H. Mayland's No. 1, LSD 5, Section 34-18-2w5, is standing cemented at 300 feet.

Foothills Test Halted

On the Fisher Creek structure, west of Calgary, Cotton Belt Mines' No. 1, LSD 5, Section 21-21-4w5, is reported to have encountered continued evidences of faulted conditions. The test has been shut down at 2,900 feet, pending analysis of samples which will determine the exact condition at the well.

Inactivity in Foothills

There has been a decided slackening of drilling operations in the foothills. At the height of the boom, the entire foothill belt from the international boundary to a point north of Calgary was being tested in the hope of developing a second Turner Valley Field. While over much of this long stretch the structures are too deeply buried for drilling, isolated areas where erosion has brought the potential oil-bearing formations within reach of the

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drill were eagerly leased and in several cases intensively tested.

The results, so far, have been almost entirely negative. The Highwood structure, a potential southerly extension of Turner Valley, had some oil showings, but with several tests drilled into the Madison it failed to develop anything worth while. A little wet gas was reported from the Morley Reserve, where a number of tests were put down; while the Waite Valley structure west of Turner Valley showed faulted conditions which led to abandonment of drilling operations.

A number of areas are still under test, but little energy has been shown this year in pushing operations. The northernmost point of recent activity has been the Monarch structure, west of Olds, where Cartier-Majestic's joint test in LSD 3, Section 36-31-7w5, is standing around 1,135 feet with 8¼-inch casing cemented. No further work has been done this season, though some shows of oil and gas were met in the upper horizons, and indications point to a fairly shallow prospect.

Farther south three unfinished tests are strung through what is generally known as the Moose Mountain area. Graystone Petroleum Consolidated's No. 2 Signal Hill, LSD 9, Section 34-23-5w5, has been standing since last fall at about 4,224 feet. Most of the drilling on this test was done by the old Signal Hill Oil Co., which got some good shows of light crude. The test is apparently in the Dalhousie sand, and a few hundred feet more drilling should determine the productivity of the Madison. Farther south, Elbow Oils' No. 1, LSD 11, Section 35-22-5w5, has done some work this spring but is standing cemented at about 3,342 feet; this test got an oil show at 2,581 feet. Still farther south, Cotton Belt Mines' No. 1, LSD 5, Section 21-21-4w5, has apparently developed faulted conditions which may result in abandonment of the test at the present depth of 2,900 feet. This test is north of the Waite Valley structure, where deep tests some years ago showed pronounced faulting.

In the Waterton Lakes area, a few miles north of the international boundary, Patrick-Spence Oil Syndicate of Calgary has spotted a test in Section 30-1-30w4 in the old Oil City Field, but no drilling has yet been reported. This is the only new test indicated for the foothills belt this year. Efforts are being made to arrange for deepening of Weymarn Petroleums' No. 2, LSD 5, Section 7-6-1w5, on the Mill City structure near Pincher Creek. This test is somewhat west of the Patrick-Spence location, and has been carried to around 3,980 feet.

A test sometimes classified with the foothills tests but really some distance east of the foothills structure is Ranchmen's Gas & Oil Co.'s No. 1 in LSD 16, Section 13-20-29w4. Location is on the Aldersyde structure, south of Calgary and east of the North Turner Valley Field. The test was started a number of years ago, and has reached 5,500 feet, some work being done this spring. The formations are apparently deeply buried, the top of the Benton shale, the outcropping formation in a great part of the Turner Valley, being found here at 4,300 feet; but small oil and gas shows have been quite numerous. While results so far have been negative, a number of these foothills structures cannot be regarded as conclusively tested.

Red Coulee Field

In the Alberta end of the Red Coulee Field, Devonshire Oils' No. 1, LSD 3, Section 10-1-16w4, which earlier in the spring resumed work at 1,145 feet, is reported temporarily shut down.

On the Montana end of the structure, Askalta Oils' No. 5, SE NE Section 2-37-4w, is reported drilling close to production.

Northern Alberta Test

In the Athabaska district, northern Alberta, Athadome Oils' No. 1, N half Section 20-72-24w4, this week encountered the Pelican sands between 990 and 1,030 feet. The sands were full of gas and water. As this is a water sand, the presence of gas proves structure, and the marker is 120 feet higher than geological estimates. Water is being shut off and drilling continued. The 10-inch casing was set at about 600 feet, and 8¼-inch was run later to overcome cavings. It is expected the test will reach the tar sand horizon, where oil production is looked for, about the end of June.

Manitoba Gas Test

In the Manitou district, southwestern Manitoba, Commonwealth Petroleums' No. 2, LSD 2, Section 26-2-9wPM, is standing at 1,917 feet waiting for casing.

British Columbia Drilling

In the Sage Creek district, in southeastern British Columbia, Crow's Nest-Glacier Oil Co.'s No. 1 has finished sidetracking lost tools and is making new hole in a softer formation below 2,990 feet. The drill had previously been working in a hard, dense gray limestone thought to be a capping formation, and the hole is now making rapid headway.

In the Kelowna district, Okanagan Oil & Gas Co.'s No. 1, E half Section 2-26-Osoyoos Survey, casing will be run to shut off water which comes from approximately 1,900 feet, and a test made of oil showings in a marine limestone in which the hole now bottoms at 2,520 feet. These showings have increased with deeper drilling, and a potential production of 25 to 100 bbls. is claimed.

Saskatchewan Gas Reported

It is unofficially reported that a test drilled by the Hatch Syndicate of Regina on the Boundary Dome in southwestern Saskatchewan has encountered a fair gas flow at comparatively shallow depth. The location is southwest of Maple Creek, east of the Saskatchewan-Alberta boundary, and about 15 miles north of the Montana line. No definite test has been made.

New Saskatchewan Prospect

A new oil and gas prospect in northeastern Saskatchewan has been investigated by Jack Wells of Hudson Bay Junction, who has secured a number of leases. Interest was first aroused by the discovery of oil seepages. The seepage area centers in a valley bounded by the Pasquia and Porcupine Mountains and the seepages are most evident after heavy rains, oil showings appearing within a radius of 50 miles. Discovered seepages indicate a northeast and southwest trend to the structure.

The country is mostly black sand covered with moss, approximately 2 feet deep, and the seepages run parallel with a sand ridge. Outcroppings of shale occur along the banks of the three streams which traverse the district. Two years ago, in drilling a test for water on one of these river banks, salt water was struck followed by a heavy flow of gas. A second test a few hundred feet distant got similar results. According to geological reports the territory is underlain with shales and limestones.

A one-pint sample skimmed from a seepage was sent to Ottawa for analysis. According to the report the sample was too small for distillation test or further analysis. It contained mostly water and a creamy-brown emulsion of water and oil. The oil was a brownish-black product with specific gravity 0.885 at 60 degrees F. equivalent degrees, A.P.I., 28.4 and Be, 28.2. A larger sample sent to Winnipeg for analysis showed 30 per cent gasoline and a large percentage of lubricating oils.

The Pasquia and Porcupine Mountain area has long been known as an oil prospect, but owing to difficulty of access it has escaped the notice of oil operators. The mountains are believed to contain extensive oil shale deposits and apart from the Hudson Bay Junction area, gas and oil seepages occur at a number of points. Geological information indicates that the area is a shallow drilling prospect with more than one potential horizon.

Canadian Oil Production

Official figures of the crude oil production for all Canada for April show a total of 95,585 bbls., a reduction of 1.9 per cent from the March total of 97,484 bbls., and 37.8 per cent below April, 1931, when the total was 153,705 bbls. In the first four months of the year the production for all Canada reached 380,822 bbls., compared with 649,425 bbls. in the same period of 1931. In April, Turner Valley stocks were materially reduced, some 37,461 bbls. being in storage at the end of the month compared with 47,572 bbls. at the end of March.

Ontario Operations

In Ontario, shallow drilling in the southeast portion of Lambton County has failed to develop any important field in the vicinity of Lambton Oil & Gas Syndicate's No. 1, on the Milton Walker farm, SW, Lot 28, Concession 9, Euphemia Township, which was brought in about two months ago with a pumping production, estimated as high as 40 bbls. a day, from a mud vein at 308 feet. This production has since declined to a few bbls. Since then the Lambton Oil & Gas Syndicate has drilled three additional wells, fairly close to the discovery, but all have finished dry. The syndicate has now discontinued operations.

Meanwhile in the same general area, Vogel's No. 1, SE NW, Lot 19, Concession 9, Euphemia Township, has finished dry at 450 feet. This was also a shallow test for oil, drilled by interests connected with the Michigan-Pacific Oil & Gas Co. Vogel's No. 2, NW NE, Lot 20, Concession 10, Euphemia Township, is reported drilling at 420 feet, and looks like a duster.

In the Dawn Field, Lambton County, Union Gas Co.'s No. 61, NW, Lot 23, Concession 2, Dawn Township, has had some trouble with floating sand and caving. These have prevented a definite pumping test of the possible oil production resulting from a shot between 1,815 and 1,825 feet.

In the Oil Springs Field, Fairbanks Oil & Gas Lease's No. 2, southeast of Oil Springs, is reported drilling at 1,835 feet with 5⅛-inch casing at 1,805 feet.

In the D'Clute Field, Kent County, Union Gas Co.'s No. 21 D'Clute is rigging up in Lot 22, Concession 10, Raleigh Township, 1,050 feet south of the north line and 50 feet east of the west line of the lot. The location is north of No. 20, which was recently finished as a small gasser.

Central West Fields

(Continued from Page 54)

tion 5, Monroe Township, at a depth of 2,990 feet.

O. K. Oil & Gas Co. failed to find any oil in the Berea sand from 1,714-58 feet, on the Paluga-Lynn farm, Section 34, Union Township, Belmont County, and are drilling deeper.

In Meigs County, Bedford Township, the Ohio Fuel Gas Co. found a gas well in No. 2-5,650 H. H. Genheimer farm, Section 25, at a comparatively shallow formation. Thomas and others are rigging up for a second test on the Pearl D. Hysell farm, Section 27, Salisbury Township, same county. Joe Rubin found water at 700 feet and went to a total depth of 800 feet, with a showing of gas. Starr Mills Co. is rigging up for a second test on the Karr farm, Section 11, Sutton Township.

In Perry County the Allegheny Oil Co. found a 3-bbl. well in No. 8 on the William Longstreth farm, Section 32, Pleasants Township, in the Berea sand from 1,162-88 feet, total depth 1,212 feet. Marietta Development Co. is moving drilling tools on the William E. Kitchen farm, Section 2, Monday Creek Township.

In Hocking County, City Natural Gas Co. of Lancaster is drilling on the William Elick farm, Section 13, Good Hope Township, around 600 feet.

Three additional wells were completed in the Berea Field in Chatham and Harrisville Townships of Medina County. In Chatham Township, Curtis & Eakins drilled in a dry hole in No. 7 Thomas Brown, Jr., farm, Lot 22, and Edson Sons Co. also struck a dry hole in No. 25 on the W. A. Shaw farm, Lot 10, at 397 feet. F. Bernhard and others also found a dry hole in a second test on the W. P. White farm, Lot 17, Harrisville Township, same county, at 474 feet.

INDIANA

No completions were reported from the Indiana fields and only one well abandoned, the Ohio Oil Co. and Bement's No. 1 on the L. C. Thomas farm, SW Section 32, Washington Township, Pike County.

ILLINOIS

No completions were recorded in Illinois, although a few old-time producing wells have been abandoned in Lawrence County. In Lawrence Township, the Ohio Oil Co. pulled out No. 4 Thomas Smith farm, SE Section 23. In Dennison Township, same company abandoned No. 1 P. Critchfield, SE Section 24, and No. 2 on the Ellen Lutz, NW Section 21. Silurian Oil Co. abandoned No. 1 Emma Richey, NW Section 20, and John Phipps No. 4 Simon Seed farm, NE NW Section 19, same township.

Richard and others are drilling on the H. Klais farm, Section 7, Waid Township, Crawford County.

KENTUCKY

Hart, Daviess, Ohio and a few other counties in the western division of the state are doing the bulk of the drilling operations. According to reports, Cumberland County will soon get a good play where some very fine gas wells have been found in the past, mostly to the west and southwest of Burkesville, while there is bound to be a rush for gas in the near future in the southeastern part of the state, where a few years ago numerous gas wells were found, and at that time little was thought of the territory, but now things have changed and the mountainous areas are due for a play for gas. Most of the present activity in Cumberland County is along State Highway 90.

The best well of the week was reported from the Owensboro Field, in Daviess County, where Ellis and Ashby brought in a 100-bbl. initial producer in No. 5 on the Dora Cooper farm, at 630 feet. The well is 150 feet from the south line and 750 feet from the west end of the farm. No. 6, same farm, is reported under way. Brenner and Adams' No. 6 well, 500 feet from the north line and 750 feet from the west line of the Albert Jackson farm, in the Cane Run area, produced 25 bbls. at 605 feet, with No. 7 drilling.

In Ohio County, J. E. Hare and others' test in the northwest corner of the C. E. Farmer farm, near Adaburg, is reported good for 5 bbls.

In Hart County, Creech and others' No. 1 Dave Logsdon farm, in the Logsdon Valley area, is reported with an initial of 50 bbls. Farmer and others' No. 1 Rance Wilson farm is reported at 40 bbls., and Carpenter & Frosts' No. 1 Big Sinking, west of Munfordsville, with an initial of 60 bbls. Unknown parties drilled a dry hole on the J. W. Wilerson farm, near Mount Beulah, same county. Mud Lick Oil Co. is drilling on the E. E. Gibson farm, 7 miles west of Bonneville, in the northwestern part of Hart County, and if this proves a commercial producer will make a big extension to the Hart County Field.

Reports are being circulated that Warren and Allen Counties are to have some new tests within a short time, one the Bowling Green Field and the other the Scottsville Field, both large producers when in their infancy.

Contractor Killed

Carl DeWeese, 45, oil well driller and contractor, was killed almost instantly while working on a well 7 miles west of Bonneville, in northwestern Hart County. Mr. DeWeese was lowering tubing in an oil and gas well that was drilled in, when escaping gas blew the tubing out of the well. The well is on the E. E. Gibson lease and belongs to the Mud Lick Oil Co. of which Mr. DeWeese was a member.

GASOLINE TAX PER MILE

WASHINGTON, D. C., June 27.—Average cost of gasoline tax is 29 of a cent a mile for motor cars, says American Road Builders' Association, which says:

"The average for the 26,000,000 motor vehicles in the United States is 12 miles to the gallon of gasoline consumed. The average gasoline tax rate is 3.49 cents a gallon. Total annual revenue of $536,000,000 accrues from gasoline taxes each year."

Guardsmen Seek to Prevent Irregular Disposal Of Crude Oil in Oklahoma City Field

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

Oklahoma's daily production shows a sharp drop for the week ending June 25. The daily average is estimated at 426,300 bbls. a day compared to 452,985 bbls. a day the previous week, a decline of 26,600 bbls. The decline is believed to be due to the purchasing companies having run a large share of their allowable in the first 21 days of the month. This has been common practice for the buyers for some in the past as it was found to be more economical. The Oklahoma City Field monopolizes the State's activities for the week due to placing that field under martial law.

The present proration orders of the prorated fields in the State of Oklahoma will continue in force until July 15, it was announced by Paul A. Walker, chairman of the Oklahoma Corporation Commission. The meeting scheduled for June 28 to take new allowables and nominations was postponed until July 11.

Acting Governor Robert Burns will let Governor Murray's new military order covering enforcement of proration stand, he announced during the week. E. E. Hughes, a member of the Corporation Commission, said that he was in favor of a Federal court test of the governor's power to use the militia to regulate an otherwise normal business or industry. This statement was made from the bench at a hearing set for the Marshall Oil Co. on petition to restrain it from producing.

Lieut. Col. Cicero I. Murray has called a general meeting of all operators in the Oklahoma City Field for July 7, at which time the permanent personnel of the proration board, provided for in the military order, will be selected. The Marshall Oil Co.'s case is considered important due to the question of the authority of the commission under the military order. Some express the opinion the commission is within its rights in prosecuting and levying fines for contempt, and that the militia may be used to make collection of fines, even so far as to shut in wells until settlement is made.

New Wells in Oklahoma City

New wells completed in the Oklahoma City Field include the following: American Oil & Refining Co.'s No. 1 Whitfield, SE cor. NE SE, Section 34-12-3w, in the north end of the field, flowed 1,156 bbls. of oil in 30 minutes but started cutting connections and was shut in. The Wilcox sand was found at 6,268-6,408 feet. The gas was estimated at 80,000,000 feet a day.

Anderson & Kerr and Anderson & Prichard Oil Corp.'s No. 1 Bailey, Section 22-11-3w, on the west side of the field, flowed 1,085 bbls. in one hour from the Wilcox sand at 6,463-6,565 feet. The gas was estimated at 32,000,000 feet a day.

Troops Again in the Field

The second army of occupation marched into the Oklahoma City Field June 22, almost a year after the first "army" moved into the field. The force of 30 national guardsmen are under the command of Lieut. Col. Cicero I. Murray, who is in charge of proration enforcement under the recent executive order.

Colonel Murray explained that the executive order applied to the Oklahoma City Field only and took from the Oklahoma Corporation Commission only the enforcement power, which Governor Murray and some operators said had broken down.

Colonel Murray said that it is not the intention of the governor in the executive order to interfere in any way with the functions of the Corporation Commission, with reference to hearings and findings of the market demand, allowables for the respective fields and all other matters concerning the conservation law of the State outside of enforcement. The only effect of the order is to take over the enforcement of the Corporation Commission's orders in the Oklahoma City Field. It has no effect in any other area.

This order suspends the authority of the present umpire, R. M. Collins, over the Oklahoma City Field, but it has no effect on his authority in other areas in the State. Mr. Collins has been umpire in the Oklahoma City Field since February 1.

Umpire Not Yet Named

The new committee named in the order will see that an umpire is named in the future and that he will be a member of the committee as created by the executive order. The three men named to serve on the committee were temporarily appointed and they are to serve only until a meeting is called and the operators in the field are given an opportunity to select the five men they desire to serve, which will then constitute a permanent committee. A meeting is expected to be called within a week for the above purpose.

Under the governor's order the present force is removed from functioning in the Oklahoma City Field. A temporary board has been installed consisting of Burdette Blue, vice president and general manager of Indian Territory Illuminating Oil Co.; Wirt Franklin, president of Wirt Franklin Petroleum Corp.; and E. F. Guidinger, of Phillips Petroleum Co.

The Greater Seminole area and other prorated areas in the State continue under the executive order of last August, as there has been few breaches of rules and regulations in any of these fields, and where cases of violations have been found they were handled without much litigation.

The military force in the Oklahoma City Field will be under the command of Lieut. Col. C. I. Murray, with 11 officers and 23 enlisted men. The June budget for proration in the Oklahoma City Field, is now estimated at $7,500, exceeding the figure of $4,500 originally agreed upon by operators at a mass meeting in Oklahoma City in March. The increased cost is due to expenses incident to the Wilcox Oil & Gas Co.'s suit.

The assessments from the various companies were made on the basis of from one-fourth to one-sixth of a cent per barrel of oil handled by pipe lines. The assessment has varied because of the change in the outlet for the field. Under the old system, the umpire had no power to enforce payment of the assessments.

Act Against Marshall Oil Co.

Marshall Oil Co.'s wells in the Oklahoma City Field were ordered shut in indefinitely and transporting companies were ordered not to move oil tendered for shipment by the Marshall Oil Co. by the Oklahoma Corporation Commission. While the commission did not direct the militia, under Col. Cicero I. Murray to keep the wells shut down it was said that the militia served notice on both the Marshall Oil Co. and the Wilcox Oil & Gas Co. to remain shut in until the termination of the litigation over the alleged violation of the commission's orders. No troops were put on the companies' leases and such force will not be used unless the companies attempt to open their wells.

The Marshall Oil Co.'s wells affected include No. 1 Bucher, SW cor. NW, Section 3-11-3w; No. 1 Buxton, NE cor. NW, Section 3-11-3w, and No. 1 Keller, NW cor., Section 10-11-3w. Testimony was presented at the commission's hearing on Saturday, to show that these three wells overproduced a total of 56,964 bbls. and that the company has failed or refused to make reports to the umpire's office on amounts of crude oil produced from these properties.

The Corporation Commission had cited the Marshall Oil Co. to appear and show why it should not be held in contempt for failure to make reports for the period from June 9 to 15, inclusive. The petition was filed by Umpire Ray M. Collins, at that time in charge of the proration enforcement in the Oklahoma City Field.

Chairman Paul Walker continued the hearing until July 9 and said that orders would be issued restraining the Marshall Oil Co. from producing and transporting crude. A second order would be issued directed to the Empire Pipe Line Co., H. F. Wilcox Oil & Gas Co., Globe Oil & Refining Co., Magnolia Pipe Line Co., the Champlin Refining Co., and the St. Louis San Francisco Railway Co. prohibiting them from transporting crude for the company.

Railway attorneys objected to the order stating it would throw the burden of proof of the legality of the produced oil upon them and such an order might have a far reaching effect.

One of the members of the umpire's office estimated the overproduction from the Marshall Oil Co.'s wells after the appearance of the general agent for the Frsico Railroad. He testified to 30 carloads of oil shipped from Marshall between June 10 and 20, and 105 carloads for H. G. Marshall Oil Co. in the same period, and 56 carloads for H. G. Marshall.

Crude Oil Demand

It was estimated after a survey of the purchasers that the crude demand from the Oklahoma City Field for the month of July would be approximately 85,000 bbls. daily instead of 97,300 bbls., the present nomination. The survey was made after the governor's order was issued and it is believed that some of the purchasers will notify the commission of their desire to reduce their takings.

It is believed if the state militia continues its plan to keep shut down all alleged violators of the proration rules, there is a possibility that these shut down companies will absorb all the decline in the demand, with the entire allowable being allotted to wells even with proration and which have not violated the rules.

Attempts were being made during the week to finish potentials on all wells and the initial tests on a large group of wells completed in the last month. Drilling operations were dull and no new operations were started within the last two weeks. The expected development of the southwest part of the field has been delayed for the time being, some operators having shut down work after the construction of a rig to take the 58-day shut down time before starting the drilling.

Pipe Line Shipments

The pipe line shipments from the Oklahoma City Field show an increase up to June 21. The daily average pipe line shipments from that field for the week ending June 18 was 124,191 bbls. This was believed to be due to the desire of the pipe line companies to move as much oil as possible before the 4 per cent tax went into effect. The Stanolind Pipe Line Co. stepped up its shipments to 49,-

Wildcat Operations in Oklahoma

NORTHERN OKLAHOMA

ALFALFA COUNTY

Company, farm and location—	Remarks:
Smith Brothers' No. 1 Forbes, SE cor. NW NW Sec. 12-27-11w	S.D. 1,232 ft.
J. W. Bailey's No. 1 Acre, SW cor. NE Sec. 14-24-11w	S.D. 6,503 ft.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 33-10-23w	Rig.
Price-McFann's No. 1 Webster, C SW SW Sec. 34-8-24w	T.D. 2,344 ft.; plugged back to 1,890-1,900 ft.; 1,500,000 ft gas.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-22-22w	S.D. 2,550 ft
White et al's No. 1 Green, SW cor. Sec. 34-10-24w	S.D. 1,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w	Drlg. 275 ft.
Washoma Oil Co. et al's No. 1 Phillips, C NW SW Sec. 13-19-10w	S.D. 5,115 ft.

CADDO COUNTY

Abernathy & Brown's No. 1 Houston, Sec. 24-6-13w	S.D. 1,115 ft.

CHEROKEE COUNTY

La Piere et al's No. 1 Wooda, C SE SE Sec. 27-17-21	S.D. 1,504 ft.

COAL COUNTY

Radial Oil Co.'s No. 1 McGraw, NE NW Sec. 2-1s-8	S.D. 1,450 ft.

COMANCHE COUNTY

T. E. Bradley et al's No. 1 Pruitt, NE SW SE Sec. 8-1-9w	S.D. 1,500 ft.
G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w	S.D. 1,450 ft.

CREEK COUNTY

E. L. Jillson et al's No. 1 Starr, SE NW, Sec. 15-15-8	Drlg. 400 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 12-14-14w	Location.

ELLIS COUNTY

L. C. Hierek's No. 1 Roper, C SE NW Sec. 21-20-24w	Rig on ground.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE, Sec. 32-3-7w	Drlg. 1,900 ft.
Carter Oil Co.'s No. 1 Carson, C SE SE SE, Sec. 12-3-8w	Drlg. 4,991 ft.; abnd.
Schoonmaker et al's No. 1 Station, NW cor. 35-4-6w	S.D. 40 ft.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w	S.D. 5,850 ft.

(Continued on Page 59)

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6-30-32

431 bbls. one day last week. This company lost several days' shipments during the flood early in the month and was attempting to average its runs with its nominations of 17,000 bbls. daily for the month. The shipments for the last 10 days of the month are expected to show a sharp decline from the first 21 days' shipments.

Abandoning Old Wells

Owners of stripper wells in the northeastern part of the State are abandoning some small producers, either because of water encroachment or unprofitable operating conditions.

During the month of May a total of 111 wells were plugged by representatives of the State Corporation Commission, and more than half were in the stripper territory. In addition to these wells it is estimated that many wells are shut down with little hopes of going back on production, owing to the fact that the water encroachment has made it unprofitable to pump these wells. It is estimated during the first six months of the year a thousand wells have been abandoned in the northeastern part of Oklahoma.

During the last month in Rogers County 9 wells were plugged and abandoned. In Nowata County 8 wells were abandoned; in Tulsa County, 25; Okmulgee County, 13; Osage County, 3; Pawnee County, 5; Creek County, 10; and Kay County, 5.

A number of wells are being abandoned in the Greater Seminole area. These wells are exhausted oil wells. Some were first plugged back to the shallow horizons without good results.

During the first six months of the year only a comparatively small number of wildcat tests were started as the crude oil production has been in excess of the requirements. Most of the wildcat tests have failed in their attempts to discover fields of importance. The companies with large blocks of acreage are not contemplating drilling any wildcats during the remainder of the year.

Pottawatomie County has been the scene of a wildcat play, but it developed into a flash. Salt water has been found to be increasing in the extension wells in Township 7-4, and the new discovery well in Township 6-4 has been limited in its production, while other tests drilling outside of the unitized block were running low on structure and are apparent failures.

Southern Oklahoma has been active in spots. Stephens County has been setting the pace of the southern counties and Marshall County has been following with a score of tests drilling to the shallow sand near Kingston.

In Pottawatomie County

Monett in Pottawatomie County is the only interesting area in the Greater Seminole district. The most recent well in that area which found production in the Viola lime will be drilled deeper to the Simpson sand formation. Noble Drilling Co.'s No. 1 Lucus, NW cor., Section 2-6-4, an offset to the discovery well, found pay in the Viola lime at 4,163-71 feet where it swabbed 472 bbls. of oil in 16 hours. All the other producing wells in that area are producing from the Simpson sand.

H. H. Taylor and others' No. 1 Bean, SW cor. NW, Section 36-7-4, found a showing of oil in the Hunton lime at 3,928 feet and was drilling in the Viola lime at 4,065 feet. The top of the Viola was found at 4,050 feet. Magnolia Petroleum Co.'s No. 1 Martin, SE cor. NE NW, Section 34-7-4, was drilling at 4,205 feet with nothing showing.

In the West Konawa area, the Gypsy Oil Co. and others' No. 1 Graham, SW cor. NE, Section 25-6-4, is a new location on a unitized tract, offsetting the discovery well to the northwest. The new location is on The Texas Company's acreage.

Arrow Drilling Co.'s No. 1 Noble, NE cor. SE SE, Section 26-6-4, a half mile west of the discovery well, was plugged back to the sand at 2,900-15 feet and shot twice with 5 quarts and was cleaning out. The total depth of the test was 3,801 feet where it found water.

In the County Line Pool, in Lincoln and Creek Counties, which has recently become an oil producing area after some of the old gas wells were drilled deeper, Pure Oil Co.'s No. 1 Unglesby-Pinkston, on a strip in the SE cor. NW Section 1-15-6, which first found the Wilcox sand at 3,648 feet and was completed as a gas well, was drilled deeper into the lower pay and started showing oil from 3,700-05 feet. The casing was cemented at 3,700 feet, and after the plugs were drilled it was deepened to 3,707 feet, where it swabbed 725 bbls. of oil in 24 hours. It was again drilled deeper to 3,713 feet, and made 515 bbls. of oil in 12 hours and 715 bbls. of oil in 24 hours.

The Gypsy Oil Co.'s No. 1 Pinkston, a location to the west in Section 1-15-6, was drilled deeper to a total depth of 3,698 feet, where it made 14 bbls. of oil an hour and was shut in without further testing. Both of these wells are without a pipe line connection.

Stanolind Oil & Gas Co.'s No. 1 Bowers, NE cor. SW Section 1-15-6, a south offset to the discovery well, was drilling deeper at 3,681 feet from a total depth of 3,654 feet. The new area is located east of the Skellyville Pool and north of the Key West Field, both being in Lincoln County.

Test in Ellis County

Far western Oklahoma is assured of another wildcat test with the closing of a deal between the Charles Davidson Petroleum Co. and L. C. Hivick and the Algiers Oil Co., all of Oklahoma City. The Davidson Co. has been assigned a 7,000-acre block in Townships 20-23w and 20-24w, lying north of Arnett, in Ellis County, in the western part of the State. A contract to drill a well to the Wilcox sand has been approved, unless shallower production is found. The location of the test will be C SE NW, Section 21-20-24w. Some equipment has been moved to the location and under the new contract the operations are expected to start by July 10.

The nearest production is Sinclair Prairie Oil Co.'s gas well in Section 14-26-24w, Harper County, to the northwest, which was drilled to a total depth of 8,671 feet and plugged back to the gas sand at 5,900 feet.

Another western Oklahoma wildcat test in Blaine County was drilling below 300 feet. Watonga Oil & Gas Co.'s No. 1 Masters, SW cor. NW NW, Section 27-16-11w, is expecting to land surface pipe around this depth. This is an old location on which a well was started several years ago and later abandoned. New hole is being made at the old test.

In southern Oklahoma several of the tests in the Tatums area, Carter County, are nearing the pay sand. P. Robb and others' No. 1 Burton, NE cor. SW, Section 31-1s-2w, in the extreme south end of the Tatums Field, Carter County, found a sand at 1,811-20 feet with a showing of oil, but the deeper Tatums sand was missed. The total depth of the test is 1,852 feet. Casing has been cemented on top of the sand at 1,810 feet.

E. M. Boring and others' No. 1 Wolf, C SE NE, Section 13-1s-3w, 1½ miles north of production was drilling at 1,875 feet.

B. F. Lundy and Murphy's No. 1 McConnell, SW cor. SE SW, Section 18-1s-2w, is a new location in the north end of the field. It will be drilled with a rotary.

Creek County

Gled Oil Co.'s No. 10 Koch, SE cor. NE NE, Section 20-19-9, was rigging up. Holmes Oil Co.'s No. 1 Deere, SE cor. SW SE, Section 25-19-9, was spudding. Johnson Oil & Refining Co.'s No. 2 Evans, NW cor. SE NW, Section 29-19-9, was spudding. Westfall Drilling Co.'s No. 1 Jackson, SE cor. NE NW, Section 3-18-8, was drilling at 125 feet. W. G. Banks' No. 1 S. Miller, CEL SW SW, Section 30-17-12, found water in sand at 1,673-1,975 feet.

Hughes County

Taylor and The Texas Company's No. 1 Emery, NE cor. SW, Section 28-7-8, was drilling at 760 feet. Limestone Oil & Gas Co.'s No. 1 Walker, C NE NE,

Section 15-7-8, was completed for 189 bbls. of oil from sand at 1,238-45 feet.

Grady County

Carter Oil Co.'s No. 1 Carson, SE cor., Section 12-3-8w, was abandoned at a total depth of 4,991 feet.

Osage County

Galt-Brown's No. 1 well, in the SE cor. SW NE, Section 15-24-8, was drilling at 250 feet.

Oklahoma County

Anderson & Kerr's No. 1 Lippert, SW cor. NW SE, Section 22-11-3w, was spudding. Indian Territory Illuminating Oil Co.'s No. 7 M.K.T., NW cor. SW SW, Section 35-12-3w, was completed for 2,445 bbls. of oil in 5 hours and 20 minutes from the Wilcox sand at 6,253-6,379 feet. Slick and others' No. 3 Long, CWL SW SE, Section 15-11-3w, made 2,491 bbls. of oil in eight hours from the Wilcox sand at 6,485-6,528 feet. Gulf Production Co. of Oklahoma's No. 4, SE cor. NE NW, Section 22-11-3w, Spencer addition, Block 3, is an abandoned location.

Muskogee County

Goodman-Cantrall's No. 1 Corbray, NE cor. SE, Section 12-15-15, was abandoned at a total depth of 1,250 feet.

Okmulgee County

N. S. Pettinger and others' No. 12 Conner, CWL NE NW, Section 6-14-15, was drilling at 640 feet. G. A. Simmons' No. 3 White, CWL NW NE, Section 21-14-11, is a rig.

Pittsburg County

Ruby Ann Oil Co.'s No. 1 George, CEL NW SE, Section 3-4-16, was completed for 25,000 feet of gas a day from sand at 1,116-1,276 feet.

Seminole County

Droppleman and others' No. 1 Charty, NE cor. SW SW, Section 29-6-6, an old well drilling deeper, was at 2,685 feet.

Pottawatomie County

Peters and others' No. 1 Hudson, SE cor. NW SE, Section 24-6-4, was spudding. Mid-Continent Petroleum Corp.'s No. 1 Schrader, NW cor. NE, Section 6-6-5, was spudding.

Pontotoc County

Patsey Oil Co.'s No. 1 Burke, SE cor. NE SE, Section 25-5-4, is spudding. Moore and others' No. 11 Brown, SW cor. NE, Section 27-5-6, was drilling at 200 feet. Sunray Oil Co.'s No. 1 Grant, C SE NE, Section 11-4-8, was drilling at 100 feet.

Tulsa County

Sands Petroleum Co.'s No. 2 Robin, CSL SW SW, Section 23-18-15, was drilling at 450 feet.

Wildcat Operations in Oklahoma

(Continued from Page 57)

GREER COUNTY

Dovell et al's No. 1 Capell, NW cor. Sec. 1-7-22w.....5,000,000 ft. gas 1,455-65 ft.; T.D. 1,760 ft.
French's No. 1 Murphy, SW NW Sec. 23-7-21w.....S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19 .....S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9 .....S.D. 200 ft.

KAY COUNTY

Bluebaugh et al's No. 1 Indian, C NW NE Sec. 30-25-1...Drlg. 2,485 ft.
Lewis et al's No. 1 Harris, SE NW Sec. 14-26-1 .....Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-2 .....S.D. 2,693 ft.
Blackwell Oil Co.'s No. 1 Harshman, Sec. 2-26-1w .....Rig on ground.

KIOWA COUNTY

Christian's No. 1 Jones, NE SE Sec. 8-7-18w.....C.O. 1,200 ft.

LATIMER COUNTY

F. English's No. 1 Unknown, NW SE Sec. 16-6-19 .....S.D. 1,542 ft.

LINCOLN COUNTY

Hilton Phillips' No. 1 Phillips, SW NW Sec. 2-14-3 .....Show oil and water; 6-in. csg.; swabbing; T.D. 5,080 ft., water P.B. 4,305 ft.; shot 30 quarts; water.
Mote et al's No. 1 School Land, NW cor. Sec. 36-17-5 ...S.D. 3,570 ft.

NOBLE COUNTY

Wentz Oil's No. 1 Wolff, C SE NW Sec. 17-20-2w.....Rig.

OKLAHOMA COUNTY

Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w .....S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w .....S.D. 5,515 ft.

OSAGE COUNTY

Mohawk Oil Co.'s No. 1, NE cor. Sec. 10-26-9 .....Location.

PAWNEE COUNTY

Rockstool's No. 1 Wylie, NW NE SW Sec. 6-20-5 .....S.D. 1,950 ft.

PITTSBURG COUNTY

Ruby Ann Oil Co.'s No. 1 George, CEL NW SE Sec. 3-4-16 .....Show gas 1,116-27 ft.; T.D. 1,282 ft.; to test.
Tape Oil Co.'s No. 1 Fulton, SE Sec. 34-7-14 .....T.D. 2,500 ft.; abn'l., dry.
J. Morrison's No. 1 Fowler, NE SE Sec. 13-7-17 .....Rig.
C. Kennedy's No. 1 Travis, C SW NE Sec. 15-7-14 .....Rig.
Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-8-14 .....S.D. 450 ft.

PONTOTOC COUNTY

Edna Marie's No. 1 McWhirt, NE SE Sec. 11-2-6 .....Location.
Vanderslice's No. 1 Meredith, NE SW, Sec. 17-2-4 .....S.D. 230 ft.
Sunray Oil's No. 1 Grant, SE NE Sec. 11-4-8 .....Rig.

POTTAWATOMIE COUNTY

Brown et al's No. 1 Sauter, NW cor. Sec. 35-11-4 .....Cellar.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 23-12-24w.....S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w.....S.D. 3,420 ft.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 33-9-17w .....Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w .....Show oil 2,459-67 ft.; S.D. 2,757 ft.
Burns & Prince's No. 1 Lock, SW cor. Sec. 21-8-18 .....S.D. 1,770 ft.

OKLAHOMA PANHANDLE

TEXAS COUNTY

Three Way Oil Co.'s No. 1 Crane, SW NW Sec. 11-1-1B ..T.D. 4,720 ft.: to cement.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Morris et al's No. 1 Ray, NE NW NE Sec. 8-2S-12 .....S.D. 256 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 13-3S-10 .....Fishing 1,967 ft.

BRYAN COUNTY

Hughes' No. 1 Ayres, NE SW Sec. 20-7S-7 .....Drlg. 220 ft.

JEFFERSON COUNTY

Smith's No. 1 McCarty, SE NW NE Sec. 18-4S-8w .....Location.

MARSHALL COUNTY

Trailkill et al's No. 1 Spence, NE NW Sec. 10-7S-6 .....Drlg. 822-36 ft.; show oil.
Liggett et al's No. 1 McDuffee, SE NE Sec. 3-7S-6 .....Pumping 20 bbls. 805-09 ft.; no gauge.

McCURTAIN COUNTY

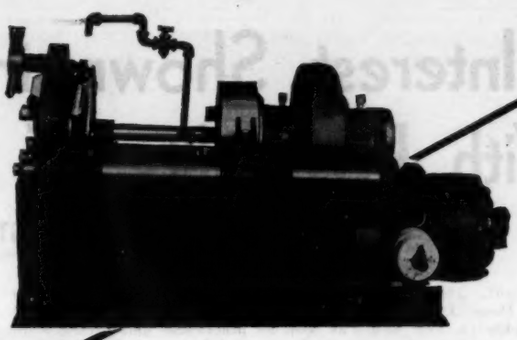
Prassell et al's No. 1 Wagoner, SE NE Sec. 5-8S-27 .....Show oil 560 ft.; 620 ft., S.D.
Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9S-25..Drlg. 2,735 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3S-19 .....S.D. 1,950 ft.

STEPHENS COUNTY

Gillette Bros.' No. 1 Cooley, NW SE NW Sec. 17-2S-8w..Location.
George's No. 1 Ryan, NW SW NE Sec. 31-3-15 ..... S.D. 510 ft.



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New Interest Shown in Midway-Sunset Field With Possibility of Deep Development

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., June 25.—The Kettleman North Dome Association added a new well to its list of producers in the Kettleman North Dome Field when No. 58-20 J was brought in flowing 4,640 bbls. of clean 35.2 gravity oil per day from 8,707 feet. This new well, an offset to Superior Oil Co.'s No. 4 Huffman, has a penetration in the Temblor at 1,410 feet. The Kettleman North Dome Association should finish another new well in the North Dome within 15 days unless something unforeseen develops and probably an additional well during July. The North American Consolidated has officially abandoned No. 1 Blauvelt, a deep test out on the north flank of Section 36-21-17, as a duster at 9,500 feet. The decision resulted from the unsuccessful attempt to develop commercial production in No. 1 Elsinore at 9,578 feet. The latter project is being plugged back by stages preparatory to testing the upper part of the Temblor, from which the well on a preliminary production test showed an initial production of approximately 1,000 bbls. per day. These two deep wells of the North American in the Kettleman North Dome Field probably cost around $40,000 each and it is doubtful whether No. 1 Elsinore will ever produce a sufficient quantity of oil to liquidate the outlay. The outcome on these two wells, representing a total of 19,078 feet of hole, justifies the Union Oil Co.'s action in quitclaiming the Cheney property last year. The Superior Oil Co., which finished No. 4 Huffman in the North Dome last week, is not expected to undertake any new development work at Kettleman Hills until late this year. Upon the completion of No. 4 Huffman, the crew was transferred to Ventura County where the company has started rig construction for a deep test on the West property in Timber Canyon. The Union has started rig construction for No. 2 Amerada King in Section 29-21-17 and the bit should begin making hole within 15 days. The Universal Consolidated is making fairly good footage in No. 1 Bunting, in the Middle Dome, but it will probably be several months before the pay is reached. The Standard is cleaning out its No. 6-29 V and this project, the first to develop commercial production in the Middle Dome, will undergo a thorough reconditioning.

Lost Hills-Belridge

The Belridge Oil Co. was unable to kill its deep zone discovery well in the North Belridge Field of Kern County and will be obliged to install additional heavy pumps. This new well is showing a tubing pressure of 2,100 pounds and a casing pressure of 3,100 pounds. The most important feature is the fact that production of gas has increased to approximately 100,000,000 feet per day. The gas has a theoretical gasoline content of 2 gallons per 1,000 feet, representing a potential daily production of 200,000 gallons of natural gasoline. The inability of the company to shut in this new deep zone discovery made it necessary to suspend production activities on all of its shallow zone producers and pinch in an additional 1,000 bbls. per day on two of its Temblor producers on this lease. The Belridge Oil Co. has tentatively decided to kill this new deep zone discovery well as soon as practicable and permit it to remain suspended until conditions warrant production. The Belridge Oil Co., with four deep Temblor zone completions, is repressuring the upper zones which have been in a depleted condition for a number of years. Repressuring operations has practically eliminated the waste of gas which would ordinarily occur from deep zone development.

Fruitvale

The Fruitvale Field of Kern County is still attracting operators and will probably continue to show a normal amount of drilling for several months. A few weeks ago it looked as though operators would retard drilling operations but, unfortunately for the curtailment program, it has subsequently showed a renewal of drilling. The latest entrant is the Cascade Oil Co., which is rigging rotary equipment on the Hasson property. It is the present intention to drill two wells on the Hasson lease and at least one other project on the adjacent Green and Robinson leases. Along Palm Lane and running at right angles to the Rosedale Highway, operators have completed seven flowing wells since the first of the year and will probably augment this list within a few months. There are four additional wells drilling in this area and three more being rigged up. Palm Lane is now known as Royalty Lane, due to the several large wells finished on both sides of the road. The Petrol Production Co., which paid $3,000 for a lease on 52 acres southeast of the field, is expected to start a new well on this property in the near future if the geological study now under way justifies the expenditure. Rig has already been erected for the first project to be drilled on this lease but rotary equipment has not yet been moved in. This location is an offset to one of the Mohawk Oil Co.'s projects and may result in extending the proven limits of production. The Western Gulf Oil Co., discoverer of the Fruitvale Field, has concluded drilling operations on No. 1 Harty and is staking location for a second well on the Price-Stewart lease. This new well, an offset to Gulf's No. 1 Rea and General Petroleum's No. 1 Hensley, now being rigged up, is expected to begin making hole within two weeks. The Treasure Oil Co. has just concluded making a production test on No. 1 Knoles, but the best it would do was 200 bbls. of 22.1 gravity oil per day from 3,640 feet.

Midway-Sunset

Due to the suspension of drilling operations, the Midway-Sunset Field of Kern County has occupied an inconspicuous position for several years. Recent developments indicate the probability that this area will receive more careful consideration during the next several months. Interest being manifested in the Midway-Sunset Field is due to the resumption of drilling operations on No. 1 Mascot by the Standard Oil Co., following a suspension of 18 months. The Standard will resume drilling operations in No. 1 Mascot at 9,629 feet during the week. This well will bear careful watching because there is every reason to believe that the Standard has picked up something which may result in commercial production. When work was suspended, the Standard announced it had not yet found the pay in this deep well but semiconfidential information indicates an oil sand of undetermined potentiality was picked up just before operations were suspended. It remains to be seen of course whether this oil sand will come up to expectations. This work may ultimately lead to additional deep zone development. The outcome will not have any appreciable effect on state production during the current year but it will become of considerable importance in 1933, if No. 1 Mascot registers substantial production. If commercial production is developed it will throw open the entire Midway-Sunset Field for deep drilling. This area, comprising approximately 35,000 acres of productive oil land and consisting of several structures, will give chiselers in southern California fields something to worry about if the Standard's No. 1 Mascot comes in as a commercial producer. Fundamentally, it presents a potential threat greater than that existing during 1923 when several flush fields in Los Angeles were undergoing intensive development simultaneously. If No. 1 Mascot comes in as a substantial producer, California marketers may immediately slash the price of crude oil and liquidate existing stocks of crude and refined oils because it will be physically impossible to continue conservation work on an equitable basis.

Buttonwillow

The Milham Exploration Co. got a wet job on a preliminary production test on No. 32-7 S. P. Land Co. in the Buttonwillow Field of Kern County at 2,353 feet and preparations are being made to drill. The Milham is building two new rigs in this field and tentative plans call for starting work on one early in July. The progressive drilling campaign which the Milham interests are pursuing in the Buttonwillow Field is predicated on the assumption that this field will be permitted to go on a commercial production basis during the winter. As far as the contract between the Milham and the Pacific Gas & Electric Co. is concerned, this will be feasible, but it remains to be seen whether the Department of Natural Resources will permit commercial production in the Buttonwillow dry gas field so long as there is a surplus production of gas at Kettleman Hills and other oil fields.

The General Petroleum, which holds several hundred acres of potentially productive oil lands on the Sheep Springs structure in the McKittrick district of Kern County, has secured a one-year extension and will refrain from drilling a deep test until this time next year. Just before the extension was secured, the company started constructing roads to facilitate the spudding in of No. 1 Lovitt in Section 10-30-21. There are three wells drilling in the McKittrick Field of Kern County, the deepest, T. H. Purman's No. 1 in Section 22-29-21, which recently passed the 4,150-foot level The Welport Oil Co. is drilling cautiously in both of its wells. The Fullerton Oil Co. has just abandoned its seventh structure survey hole in the Semitropic district of Kern County at approximately 2,600 feet. In the Shale Hills area, the Rio Grande Oil Co. is rotating in No. 1 Utting at 2,200 feet. Barnsdall Oil Co. has suspended drilling operations on No. 1 Kern County Land Co. in the Wheeler Ridge-Tejon district, in the extreme southern end of the San Joaquin Basin, at 7,125 feet. This wildcat failed to show anything and it would not be surprising if it was abandoned.

Ventura Avenue

The Associated Oil Co. has just passed the 9,630-foot level in No. 83 Lloyd, its deep zone exploratory well in the prolific Ventura Avenue Field and, while no exact depth has been designated as the objective, it is believed an early test will be made. The crew was obliged to circulate heavy mud again to kill the heavy gas pressure. While commenting on the depth of the Associated's deep well in the Ventura Avenue Field, the Western Gulf Oil Co. is drilling in No. 1 Bradley at 9,800 feet. This well, in the Santa Maria district of Santa Barbara County, was still in brown shale at last reports. While neither of these two projects is as deep as the Chanslor-Canfield Midway Oil Co.'s No. 2-A Hobson in the San Miguelito Field, one at least should be more successful from a production standpoint. No. 2-A Hobson was carried to 10,030 feet but was subsequently plugged back to 7,525 feet. No. 83 Lloyd of the Asso-

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Diesel and gas oil	30,180	4,311	.....	.....	147,970	892,230
Gasoline	348,253	49,750	246,378	35,054	3,459,148	6,647,750
Kerosene	50 477	7,211	.....	.....	154,372	41,512
Foreign exports—						
Crude oil	73,827	10,547	158,345	22,621	4,116,426	3,279,496
Fuel oil	72,490	10,356	102,506	14,644	4,153,793	6,887,011
Diesel and gas oil	27,393	3,914	111,228	15,890	1,159,709	1,824,250
Gasoline	100,726	14,389	254,271	36,324	4,328,005	4,446,655
Kerosene	89,073	12,725	113,433	16,205	1,124,463	784,456
Lubricants	.....	.....	.....	.....	.....	18,978
Naphtha distillates	.....	.....	.....	.....	75,425	.....
Coastwise-domestic—						
Crude oil	335,626	47,947	186,283	26,612	6,517,779	9,865,384
Fuel oil	113,455	16,208	174,934	24,991	5,834,128	6,263,566
Diesel and gas oil	13,960	1,994	26,652	3,807	675,761	755,357
Gasoline	250,257	35,751	58,536	9,791	7,138,010	6,083,233
Kerosene	.....	.....	.....	.....	75,475	164,442
Naphtha distillates	.....	.....	.....	.....	.....	4,952

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	151,220	.....
Gasoline	.....	.....	.....	.....	368,230	405,469
Lubricants	.....	.....	.....	.....	15,824	21,990
Foreign exports—						
Crude oil	..	.....	72,231	10,319	707,651	107,736
Fuel oil	.....	.....	.....	.....	521,659	638,876
Diesel and gas oil	.....	.....	.....	.....	352,107	245,358
Gasoline	20,192	4,300	.....	.....	1,746,261	1,939,628
Kerosene	.....	.....	.....	.....	491,863	429,002
Lubricants	.....	.....	.....	.....	24,334	.....
Naphtha distillates	.....	.....	.....	.....	.....	20,100
Coastwise-domestic—						
Fuel oil	175,763	25,109	.....	.....	1,364,772	1,923,827
Diesel and gas oil	.....	.....	25,302	3,615	231,583	160,172
Gasoline	37,748	5,392	32,379	4,626	1,499 367	1,317,712
Kerosene	2,160	309	.....	.....	65,756	130,510
Naphtha distillates	.....	.....	.....	.....	.....	49,780

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ciated at Ventura Avenue will establish a new deep record for commercial production if it is successfully completed, and there is no reason to doubt this probability unless bottom water should be encountered. The Texas Company has just passed the 3,100-foot level in its Carpinteria wildcat, in Santa Barbara County, but it will probably be another 60 days before it reaches a depth at which production may be anticipated.

Dominguez

Unless some unforeseen trouble develops, drilling operations in the Dominguez Field of Los Angeles Basin should be concluded within 30 days. None of the operators has started any new work for some time and they are now concentrating on the completion of a few redrilling jobs before suspending work. The Union is working on No. 5 Carson and No. 16 Hellman and both are scheduled for early completion. The Shell is expected to complete No. 43 Reyes, at the conclusion of which the tools will be hung up. The Associated has practically concluded its work. The only new well under way at Dominguez is Republic Petroleum Co.'s No. 1 Childs, an edge well which petroleum engineers give only an outside chance of developing commercial production. There was no change in the status of the several wells being deepened in the Inglewood Field of Los Angeles Basin. In the Potrero Field, the Wilshire Oil Co. is running four strings of tools simultaneously. Three of these wells are on the Potrero Country Club property, which the Associated Oil Co. prospected and ultimately quitclaimed before the Wilshire stepped in and took a new lease. The Wilshire's No. 1 Neace in this field is standing cemented at 6,242 feet.

Although drilling operations in the Playa Del Rey Field have been negligible for several months, a number of reconditioning jobs have been started during the past 10 days. In two instances, this work covers wells being redrilled and deepened from the upper to the deeper or Recreation zone. This work is not expected to be reflected in field production as both the upper and lower zones have already reached the settled stage. In the West Coyote Field, the Standard Oil Co. is rigging up rotary equipment for two new wells on the Murphy Coyote lease and drilling operations are expected to get under way shortly. Two new wells are making hole in the Seal Beach Field, the deepest being No. 25 San Gabriel of the Standard. No. 34 Bixby of the Continental, a recent spud, is being temporarily delayed with mechanical trouble at 3,260 feet, at which point several stands of drill pipe twisted off.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	9- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Co-operative Dev. Co., No. 1 Del Rey, Los Angeles Co.	26- 2-15	1,683	cleaning out
Lawndale Pioneers, Inc., No. 1 Pack, Los Angeles Co.	30- 3-14	6,378	suspended
Barcus, W. L., No. 1 Watson, Los Angeles Co.	28- 4-13	rig	suspended
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	4,160	redrilling
Baldwin Hills Synd., No. 1 Inglewood, Los Angeles Co.	17- 2-14	4,090	suspended
Pacific National Oil Co., No. 1 Inglewood, Los Angeles Co.	7- 2-14	4,318	cemented
Pacific Western Oil, No. 16 Inglewood, Los Angeles Co.	8- 2-14	1,428	sd. sh. drilling
Rucker & Croul, No. 2 Puente, Los Angeles Co.	27- 2-10	2,200	suspended
El Dorado Oil Co., No. 1 Puente, Los Angeles Co.	30- 2- 9	2,860	fishing
James, W. L., No. 1 Bell, Los Angeles Co.	31- 2-13	1,593	suspended
Weist Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	4,902	suspended
Blinn & Gray, No. 1 Montebello, Los Angeles Co.	6- 2-11	5,060	suspended
McNeil, A. W., No. 1 Montebello, Los Angeles Co.	7- 2-11	mtl.	building rig
Wardell & Menichini, No. 1 Montebello, Los Angeles Co.	7- 2-11	304	suspended
Yellowstone Oil Co., No. 1 Alhambra, Los Angeles Co.	24- 1-13	3,919	suspended
Caballero Estates, No. 1 Calabasas, Los Angeles Co.	23- 1-16	1,604	suspended
Marble, Willard, No. 1 Chatsworth, Los Angeles Co.	6- 2-14	1,395	suspended
Ball, W. T., No. 1 Newhall, Los Angeles Co.	24- 3-16	1,731	sd. sh. drilling
Ajax Pet., No. 1 Newport, Orange Co.	21- 6-10	7,259	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	1,970	suspended
Buena Park Oil Co., No. 1 Buena Park, Orange Co.	34- 3-11	....	material
Orangethorpe Pet., No. 1 Brea, Orange Co.	32- 3-10	2,873	hd. sd. drilling
Beck, Alfred, No. 1 Corona, Riverside Co.	8- 4- 6	1,110	suspended
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8- 4- 6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	35- 1- 2	2,392	suspended
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	668	sd. sh. drilling
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	763	sd. sh. drilling
Borderland Oil Co., No. 2 Encinitas, San Diego Co.	29-16- 4	2,677	suspended
South Bay Oil Co., No. 1 Border, San Diego Co.	31-18- 2	1,243	suspended
Itasca Pet. Co., No. 1 Mesa, San Diego Co.	33-18- 1	1,701	suspended
Oklahoma Oil Corp., No. 1 Palma, San Diego Co.	35-11- 8	1,888	suspended
Shannon, G. H., No. 1 Kearney, San Diego Co.	14-15- 3	446	suspended

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	1,041	hd. sd. drilling
Barnsdall, No. 1 Los Alamos, Santa Barbara Co.	31- 8-33	4,914	br. sh. drilling
Western Gulf, No. 1 Santa Maria, Santa Barbara Co.	5- 9-33	5,803	hd. sd. drilling
Wilson, N. S., No. 1 Los Alamos, Santa Barbara Co.	2- 7-35	4,979	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	34- 4-29	2,110	cleaning out
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	5,510	plugging
Pacific Western, No. 1 Gibraltar, Santa Barbara Co.	14- 5-27	3,345	suspended
The Texas Co., No. 1 Carpinteria, Santa Barbara Co.	33- 4-25	3,173	sd. sh. drilling
Associated, No. 1 Rincon Creek, Ventura Co.	19- 4-24	2,080	suspended
Woodrow Pet., No. 1 Miguelito, Ventura Co.	4- 3-24	2,553	sd. sh. drilling
Bell, H. H., No. 1 South Mountain, Ventura Co.	22- 3-21	2,484	suspended
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	....	material
Superior Oil Co., No. 1 Timber Canyon, Ventura Co.	13- 4-21	mtl.	building rig
Magu Synd., No. 1 Oxnard, Ventura Co.	17- 1-25	5,812	suspended
American Oil Co., No. 1 Conejo, Ventura Co.	33- 2-20	1,693	hd. sd. drilling
General Pet., No. 1 Buttonwillow, Kern Co.	6-28-23	5,094	suspended
Wilshire Oil Co., No. 1-A Buttonwillow, Kern Co.	7-29-24	7,000	testing
Milham Expl. Co., No. 15 Buttonwillow, Kern Co.	7-28-23	2,353	cleaning out
Milham Expl. Co., No. 16 Buttonwillow, Kern Co.	7-28-23	mtl.	building rig
Purman, T. H., No. 1 McKittrick, Kern Co.	32-29-21	4,130	br. sh. drilling
Welport Oil Co., No. 8 McKittrick, Kern Co.	26-29-21	1,298	recemented
Welport Oil Co., No. 2 McKittrick, Kern Co.	19-29-21	350	cleaning out
General Pet., No. 1 Belridge, Kern Co.	30-28-21	3,260	suspended
Wallace, K. C., No. 1 Belridge, Kern Co.	32-29-21	4,222	suspended
Rio Grande, No. 1 Shale Hills, Kern Co.	7-27-19	2,261	sd. sh. drilling
Rio Cal Pet., No. 1 Shale Hills, Kern Co.	2-27-18	2,355	suspended
Fullerton Oil Co., No. 7 Semitropic, Kern Co.	1-27-22	2,598	abandoning
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,225	suspended
Hannah, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,360	hd. sd. drilling
Gauthier, C. B., No. 1 Devils Den, Kern Co.	24-25-18	902	sd. sh. drilling
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	2,383	fishing
Regina Oil Corp., No. 1 Mojave, Kern Co.	26-10-14	2,828	hd. sd. drilling
Meridian Oil Co., No. 1 Mojave, Kern Co.	11- 9-15	4,000	suspended
Harding, J. B., No. 1 Mojave, Kern Co.	5-10-10	1,030	redrilling
Barnsdall Oil Co., No. 1 Tejon, Kern Co.	15-11-20	7,126	suspended
Ritchie, J. J., No. 1 Tejon, Kern Co.	35-11-19	6,025	suspended
Descanso Oil Co., No. 1 Tejon, Kern Co.	31-11-19	2,749	suspended
Associated, No. 1 Jacalitos, Fresno Co.	25-21-15	6,197	suspended
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo	3-32-22	2,693	redrilling
Emerich Oil Co., No. 1 Carrizo Plains, San Luis Obispo	23-32-22	1,580	cleaning out
Trav-El Oil Co., No. 1 Carrizo Plains, San Luis Obispo	7-32-22	2,450	suspended
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,352	suspended
Martin, J. D., No. 3 Edna, San Luis Obispo Co.	5-31-13	311	sd. sh. drilling
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Schilling, C., No. 1 Atascadero, San Luis Obispo Co.	1-29-12	1,650	suspended
Pacific Inland, well No. 1, Monterey Co.	19-23-15	2,340	cemented
Brown, W. F., No. 1 Parkfield, Monterey Co.	15-23-14	1,051	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Woodward, Glen, No. 1 Dudley Ridge, Kings Co.	32-22-20	549	cemented
Scott Bros. Drlg. Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,843	gr. sd. drilling
Local Natural Gas Co., No. 1 Dudley Ridge, Kings Co.	32-22-20	541	cemented
Kettleman Nat. Gas Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,100	suspended
Irma Investment Co., No. 2 Dudley Ridge, Kings Co.	7-23-20	1,224	suspended
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	516	suspended
Eagle Oil Co., No. 2 Dudley Ridge, Kings Co.	15-23-20	1,073	sd. sh. drilling
Tulare Basin Gas Co., No. 2 Dudley Ridge, Kings Co.	2-23-19	rig	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	26-23-17	5,894	suspended
Kettleman Ridge Oil Co., No. 1 Avenal, Kings Co.	10-23-16	1,148	cleaning out
Mid-California Oil Co., No. 1 Avenal, Kings Co.	11-23-16	....	grading
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Guess, E. B., No. 3 Dudley Ridge, Kings Co.	12-23-22	1,840	testing
Ingraham, R. H., No. 1 Porterville, Tulare Co.	24-22-27	....	location
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	suspended
Gravity Expl. Co., No. 1 Alpaugh, Tulare Co.	11-24-23	2,207	fishing D.P.
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,920	suspended
Twin State Oil Co., No. 1 Point Arena, Mendocino Co.	14-12-17	7,694	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	2,848	cleaning out
Colusa Oil Co., No. 1 Bush, Colusa Co.	31-15- 4	1,040	suspended
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	3- 2-10	4,750	suspended
Hilderbrandt, R., No. 1 Crows Landing, Stanislaus Co.	36- 6- 7	1,130	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	20- 3-13	2,594	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo Co.	33-12- 3	2,880	fishing D.P.
Easton & Monell, No. 1 Colma, San Mateo Co.	25- 3- 6	3,130	suspended

DEEP TEST FOR GAS IN ERIE COUNTY, PENNA.

PITTSBURGH, Pa., June 27.—An interesting development for deep gas is being made in Erie County, Pennsylvania, and Chautauqua County, New York. The Wittmer company from Pittsburgh has completed an initial deep test in the Clinton sand and has a nice well on the Blanchard farm in the eastern edge of McKean Township, Erie County. The well is approximately 3,800 feet deep, with a good thickness of sand. It is reported a second well will be started at once.

S. J. Brendel Oil & Gas Co. is drilling a deep test to the Medina sand on the Dell Lewis farm, in the southeast corner of Greenfield Township, Erie County. It has several thousands of acres under lease in this vicinity. It is drilling at around 3,000 feet. This well is about 15 miles northeast of the Wittmer development and in the same county.

The North West Development Co., a subsidiary of the North Penn Gas Co., is drilling in North Harmony Township, Chautauqua County, New York, about 1 mile west of Chautauqua Lake. Should either of these wells prove productive it will start considerable development as this is new territory for deep testing, and should find a ready market as natural gas has not been available for industrial purposes in that vicinity.

Good Well in Midland County, Mich., Extends East Pool Two Miles East

By GEORGE A. WHITNEY

MOUNT PLEASANT, Mich., June 27. The outstanding completion of the Central Michigan Field for the week was the bringing in of a 1,000-bbl. producer by the Braden-Saunders Co., in the northwest corner of the Kate Stapleton farm, NW NW NE, Section 13, Greendale Township, Midland County. This well is approximately 2 miles east of the proven East Pool, making quite an extension. The well flowed as high as 100 bbls. an hour at but 3 feet in the Dundee. The strike is regarded as one of the most important since the drilling of the Struble discovery well nearly a year ago.

The second important strike was made by Bertha L. Jones in the northwest corner of the Jones-Woodruff farm, in the NW NW SW, Section 13, Greendale Township, reported producing from 300 to 450 bbls. a day, although first reported at 2,000 bbls. Possibly the flow of oil with a heavy gas pressure made it look like a real gusher. If the well produces only 300 bbls. it is a good find, for it is an offset to the north of the well drilled on the Rinehart farm, a test that failed to make more than a small well. The formation apparently takes a rise north of the Rinehart and indicates the possibility of a good production horizon at least as far north as the M-20 highway and some extension into Section 12. Section 12 already has produced No. 1 Schaeffer and No. 1 Root farm, which are commercial producers, although not large.

It has been generally believed that the area east of the big East Pool probably would not bring more than small wells in the 50 to 200-bbl. class. At least part of this belief has been based on the results of No. 1 Root in Section 12, No. 1 Hewitt in Section 18, Lee Township, same county, and No. 1 Rinehart in Section 13, Greendale Township. Although all of these tests made production they were not regarded as indicators of more than average possibilities for this area. The Stapleton is virtually in the center of this area bordered by the three tests. The Jones-Woodruff well is south and west of the Stapleton but about a quarter mile north of the Rinehart. The Stapleton was reported unusually high in the Dundee and the Jones-Woodruff was higher in the Dundee than the Rinehart. The production horizon apparently lies between the earlier drilled tests and it now appears that an area in the northern part of Section 13 and the eastern part of Section 14 can be developed with no little profit.

W. L. McClanahan, Inc., drilled in No. 6 well, 490 feet from the north line and 330 feet from the east line of the A. J. Struble farm, SE NE SE Section 10, Greendale Township, which started flowing at a rate of 720 bbls. in 24 hours.

Nearing Dundee Sand

The next completion due is Talbot Oil Co.'s No. 1, on the southwest corner of the state land, SW SW SE Section 11, Greendale Township, which was casing in the Dundee.

Pure Oil Co.'s No. 1 well, 990 feet from the north line and 330 feet from the east line of the Mary Jacobs farm, N half SE Section 9, Greendale Township, is reported around 3,300 feet.

New Drilling Permits

Drilling permits have been issued to Alvin H. Weber, trustee, for a test 990 feet from the south and west lines of the William Kirchner farm, in the NE Section 15, Tittabawassee Township, Saginaw County; to the Wellman Oil Co. for No. 2 well, 300 feet from the north line and 990 feet from the west line of the John Bolen farm, SE SW NE Section 14, Greendale Township, Midland County; to W. L. McClanahan, Inc., for No. 1 well, 330 feet from the north line and 990 feet from the west line of the John Pollard and others farm, NE NW SW Section 1, Isabella Township, Isabella County; to Gordon Oil Co. for No. 5-B, in the northeast corner of the N. J. Skinner farm, NW NE NE Section 16, Greendale Township, Midland County; to the Globe Oil & Gas Co. for No. 1 well, 200 feet from the south line and 600 feet from the west line of the Garrett Van Loo farm, NW SW Section 11, Laketon Township, Muskegon County; to the White Star Refining Co. for a test in the northwest corner of the Thomas Shields farm, NW NW SW Section 6, Genoa Township, Livingston County; to W. Hunter Atham for a test 660 feet from the south and west lines of the Thomas Murphy farm, center of SW NE Section 22, Richland Township, Saginaw County.

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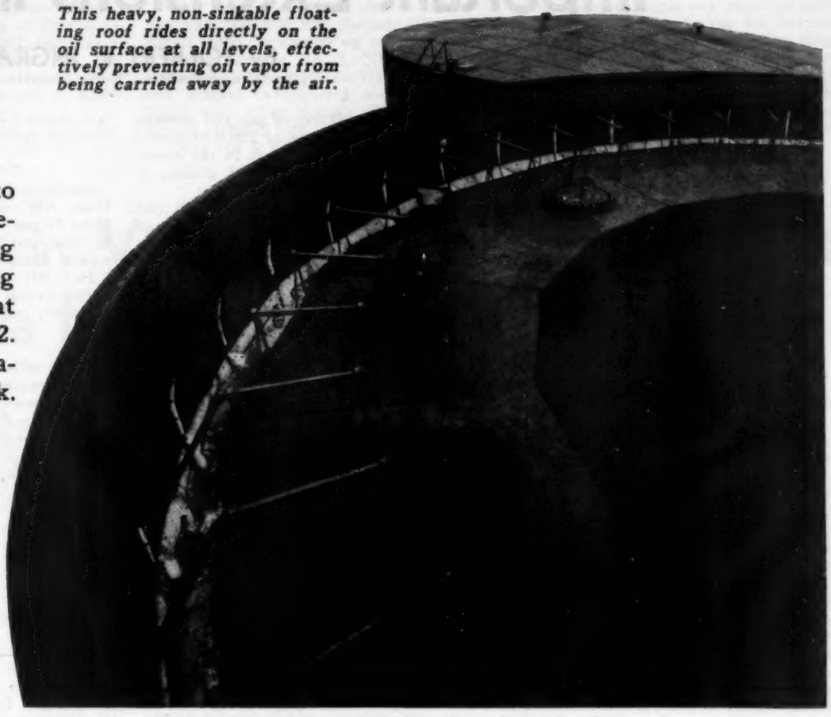

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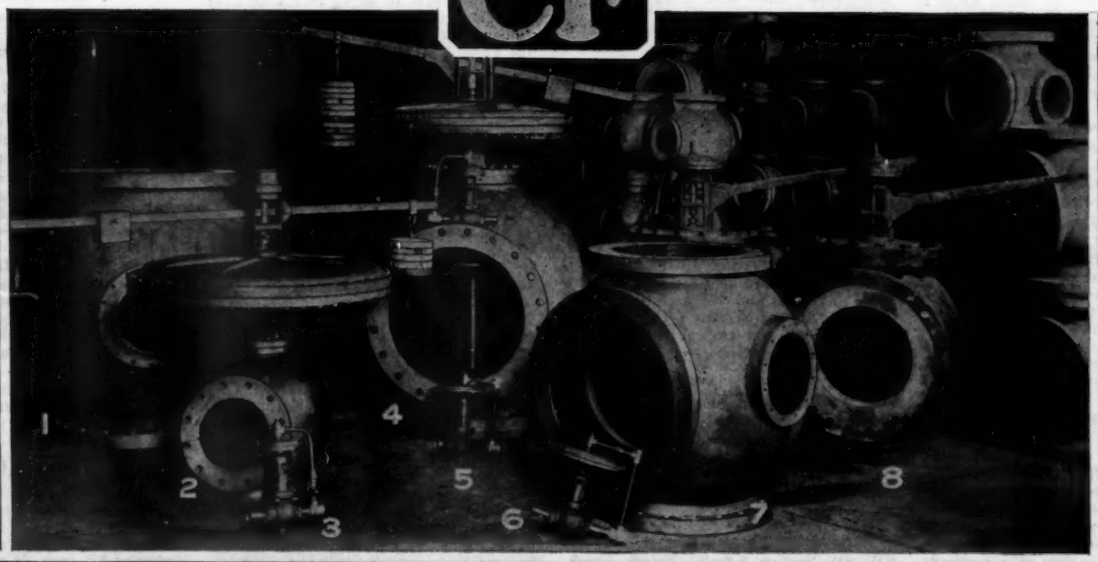

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Resumption of Work in Northeastern Colorado Important Extensions in Hobbs Pool

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., June 27.—Two completions in the Hobbs Pool by Amerada Petroleum Corp. and the Texas Pacific Coal & Oil Co. marked two extensions of the producing area and added 13,932 bbls. daily to the field's potential. The allowable outlet for the last half of June remained practically unchanged at 29,430 bbls daily. Drilling in the Eunice area is to be resumed as a result of a location by the Tidal Oil Co.

Colorado reports that the Hiawatha gas field is turning to oil are substantiated, although not officially confirmed. No. 1 Florence Wilson, which came in for 57,000,000 feet of gas 6 years ago, is reported making 190 bbls. of oil per day. Two wells are drilling and a third has spudded in a resumption of operations in northeastern Colorado. The Middlemist wildcat in Washington County, which has been shut down for two years, is preparing to resume under a new contract. A new operation for carbon dioxide gas in Delta County is getting under way.

In Wyoming, the search for light oil in fault blocks on structures in the Big Horn Basin is assuming larger proportions. One completion for 20 bbls. per day was reported in the Osage Field. The Prairie Oil & Gas Co. is abandoning its Bunker Hill test. A location in the Crook's Gap district in Fremont County is reported.

The Texas Company has made a second location in the Cut Bank Field in Montana, half a mile from the nearest producer. One 20-bbl. well was completed in the Kevin-Sunburst Field. Carbon Oil & Gas Co.'s No. 1 Armstrong, in Dry Creek, is coming back as a producer after shutting off water.

Routine operations are reported from South Dakota, Utah and Washington wildcats.

NEW MEXICO

Lea County

The potential for the Hobbs Pool was jumped from 1,152,825 bbls. daily as of June 1 to 1,166,757 bbls. daily as of June 16, an increase of 13,932 bbls., due to the completion of two good producers by the Amerada Petroleum Corp. and the Texas Pacific Coal & Oil Co. These wells are in the extreme northern and northwestern parts of the field and both proved important extensions of the productive area.

Amerada Petroleum Corp.'s No. 1 Hardin, SW cor. Section 18-18-38, an outside well at the extreme northern end of the pool and half a mile ahead of the nearest producer, reported a completion last week, was given a potential of 10,174 bbls. per day when gauged for proration. This was somewhat better than the showing made earlier in a company test when it flowed open at the rate of 9,391 bbls. of oil and 6,000,000 feet of gas and through 3-inch tubing at the rate of 4,503 bbls. and 2,920,000 feet. The total depth is 4,158 feet and tubing was run to 4,105 feet.

The Texas Pacific Coal & Oil Co.'s No. 3-G State, C SE Section 24-18-37, which extended the pool one-third of a mile northwest, was drilled to 4,227 feet and 3-inch tubing was run to 4,197 feet. On an official gauge for proration it flowed open at the rate of 3,758 bbls. of oil and 8,626,000 feet of gas and through the tubing at the rate of 2,916 bbls. and 6,671,000 feet of gas. It is in the center of the quarter and no offset drilling is required.

The Amerada well, however, will call for three offsets and the first has been spotted by Empire Gas & Fuel Co. in its No. 4 Hardin, NW cor. Section 19-18-38, 660 feet south. Cellar is being dug.

The Midwest Refining Co.'s No. 29 Turner, C SE NW Section 34-18-38, in the southeastern part of the field, is drilling at 1,415 feet in red beds and shells, and its No. 26 State, C SE NE Section 9-19-38, is drilling at 3,679 feet in broken anhydrite and lime. The last named topped anhydrite at 1,550 feet and salt at 1,665 feet. The 10¾-inch was cemented at 1,580 feet with 75 sacks. Midwest's No. 11 Byers, C NE NE Section 4-19-48, is drilling at 3,788 feet in lime after cementing the 10¾-inch at 2,725 feet with 400 sacks. Top of the brown lime was at 2,790 feet and first gas at 2,814-20 feet.

The Texas Company's No. 3-A State, C Lot 2, Section 2-21-33, Lea district, commenced spudding June 2 and cemented 15½-inch at 131 feet. This is the first operation started in the Lea district for nearly two years. It will be drilled to the top of the anhydrite with rotary and then will standardize.

The Eunice district, in which there has been no drilling for some time, is reported to be scheduled for another test this summer in the Tidal Oil Co.'s No. 1, SW cor. NE Section 8-21-36, about two-thirds of a mile north and a little east of Atlantic Oil Producing Co.'s No. 1 Coleman, SW NE NW Section 17, the nearest producer. The last named was completed a little more than a year ago and gauged 1,194 bbls. in 24 hours from sand at 3,860-3,943 feet.

Eddy County

Leonard & Levers' No. 4 State, SE SW Section 21-17-29, Jackson area, completed as a gas well at 2,278 feet in the fall of 1930, is rigging up cable tools to resume. It will be deepened 50 feet. When first completed it gauged 5,500,000 feet. Same firm's No. 7 State-Levers, C SW SE Section 20-17-29, is drilling at 1,600 feet in red shale. It had a small show of oil at 1,115-20 feet.

Flynn, Welch & Yates' No. 62 State, NW cor. SE Section 10-19-28, Artesia district, is drilling at 1,410 feet in anhydrite and lime, and W. A. Scott's No. 1 Kaiser, NW SE Section 7-18-27, is shut down at 808 feet trying to shut off a flow of artesian water.

Chaves County

R. D. Compton's No. 1 Emerson, SW cor. SE Section 20-10s-24, Roswell district, is shut down after spudding 1 foot. Warman Oil Trust's No. 1 Evans, N half Section 15-14-25, Blackdom district, is drilling at 1,390 feet in black lime.

De Baca County

Matador Oil Co.'s No. 1 Wood, NE SW SW Section 6-4n-20, Salada Creek, is bottomed at 4,666 feet and fishing for tools and line, and Landowners Oil Co.'s No. 1 McAdoo, SW cor. NE Section 16-1s-27, Buffalo Creek, is bottomed at 4,892 feet in brown shale and black lime and underreaming the 6⅝-inch at 4,884 feet.

Guadalupe County

New Mexico Producing & Refining Co., Ltd.'s No. 1 McMullen, SW cor. Section 24-5n-16, Mesa Leon district, which recently reached its contract depth of 4,500 feet, is reported resuming at 4,507 feet under a contract to Perry Bosworth to carry it to 6,000 feet.

San Juan County

Southern Union Gas Co.'s No. 6 Angel Peak, NW cor. Lot 2, Section 11-28-11, Kutz Canon district, set surface pipe at 85 feet and has resumed drilling with rotary. Kutz Canon Oil & Gas Co.'s No. 1 Day, SW cor. Section 20-28-10, is preparing to run 5⅜-inch to bottom at 3,797 feet after completing stub derrick.

COLORADO

While official information is still lacking in regard to reports that gas wells on the Hiawatha structure on the boundary between Moffat County, Colorado, and Sweetwater County, Wyoming, are turning to oil, there is little reason to doubt that there is a substantial foundation for the rumors. Most of the wells are equipped with drips to catch the gasoline that comes out with the gas and during the past three months it is said that medium green oil of paraffin base has been forcing itself from the flanks up to the casingheads and is showing in the drips. The increasing quantity of oil is reported to have resulted in the shutting in of some of the wells at intervals to increase the pressure and restrain the flow of oil as it was interfering with the flow of gas. In the meantime the Mountain Fuel Supply Co. is reported to be experimenting to determine the possibilities of the field turning to oil, but has been reluctant in giving out information until the volume of oil can be gauged and some definite announcement is possible. Samples of the oil reveal considerable paraffin which causes it to congeal into a solid that will not flow when held in a temperature below tepid warmth. The oil is said to be of very high gravity. There is a probability that the U. S. Department of the Interior may declare the ground a proven oil field. Heretofore it has been classed as a gas structure. In the event such a classification is made, the field will be subject to the customary regulations governing the production of oil and gas. Some tanks are said to have been installed and several hundred barrels of oil accumulated to be used in a refinery test to determine its real merit.

No. 1 Wilson, NE SW NE Section 22-12n-100, Moffat County, the discovery well which blew in in 1926 for 58,000,000 feet of gas, was reported shut in as long ago as last April on account of the increase in the oil flow, all tankage being full. A 250-bbl. tank near this well was reported at that time to have 200 bbls. of oil in storage and the derrick and surrounding area was covered with brownish looking paraffin. No water showed when the bleeder was opened. Northwest of the camp, along one of the laterals, a 40-bbl. tank was reported full to within 1 foot of the top with light green oil. This tank was surrounded by a large number of drums. This oil was believed to have come from No. 1 Kuykendall, NE cor. SE Section 22-12n-100, completed in 1928 at 2,025 feet for 37,000,000 feet the first 24 hours. North of this lateral two more tanks and more drums were found. There was considerable oil on the ground and sagebrush and the indications were the first oil had not been saved. The opinion was expressed that the discovery well and the Kuykendall well were capable of commercial production from what was seen.

Weld-Morgan Counties

With two wells drilling, a third spudding and a fourth location expected to be announced within a few days, the Greasewood and New Raymer areas are showing steadily increasing activity. Ohio Oil Co.'s No. 1 Butters, C SW SW Section 7-6n-60, a little more than a mile northeast of the nearest producer in the Greasewood Pool, spudded on June 21 and stopped at 300 feet to run and cement surface pipe. Manning & Terry's No. 1 Niles, C SE NE Section 13-6n-61, joint with Continental Oil Co. and Platte Valley Petroleum Co., half a mile east of No. 1 Briggs, nearest producer, spudded June 17 and cemented surface pipe at 225 feet. Both wells are being drilled with rotaries.

In the New Raymer district, Tulsa-Fort Morgan Petroleum Corp.'s No. 1 Anthes, C NE NE Section 24-8n-59, is drilling at 1,830 feet and carrying 12½-inch. It is a cable tool operation, but probably will change to rotary after testing the Hygiene, which is expected within the next 1,000 feet.

Location for the joint test of Ramsey Brothers and Danciger Oil & Refining Co. on a 6,800-acre block 5 miles south of the Tulsa-Fort Morgan well has not yet been announced as surveys have not been completed. The most frequently mentioned spot is on the Max Kraxberger farm in the N half, Section 14-7n-59. Manning & Terry are reported to have the contract. Greeley Oil Co. will furnish derrick, tanks and recoverable equipment from its No. 1 Gadbois in the Greasewood Pool. It will have the option of taking $15,000 in cash or a one-third interest in the well if it comes in as a producer. Tests are being made of water encountered in core drill holes being put down in that area by Ohio Oil Co. in some geological work, to see if the supply is ample for a rotary operation.

Washington County

Middlemist Oil Co., Brush Land & Royalty Co., C. T. Lupton and others interested in land and royalties on the Middlemist structure in Washington County have signed a contract with C. M. Smith and others for the completion of Middlemist Oil Co.'s No. 1, SE SW SE Section 14-4s-56, spudded in 1928 and drilled to 1,510 feet at which depth 12½-inch was run. This test is on a well-defined dome geologized by C. T. Lupton, of Denver. Last fall Frank E. Kistler and others took an option on the well and the block of leases, but this was not exercised. Fred R. Zimmerman, former governor of Wisconsin, became identified for a short time with the efforts to complete this test in 1929. The contract with Smith provides that the well must be in condition to resume by July 4 and preparations are under way. The location is 75 miles due east of Denver. The Dakota is expected at around 4,500 feet, or 1,700 feet shallower than at Greasewood.

Larimer County

Mayer Oil Co.'s No. 1 Reed, SW cor. NW Section 28-4n-69, Berthoud district, is bottomed at 3,250 feet after clearing up a fishing job and is underreaming and lowering 6⅝-inch. It still has 150 to 200 feet to go to reach the Muddy.

Adams County

Hills Dome Oil Lease Development's No. 1 Hills, SE cor. Section 27-3s-64, near Watkins, expects to resume next Sunday when they will cement 8¼-inch at 3,985 feet. Total depth is 4,025 feet.

Park County

South Park Oil Co.'s No. 1 Milligan, NE cor. SE Section 13-8s-76, Jefferson district, is bottomed at 2,975 feet where

it stopped to again cement off cavey ground. South Park Oil & Gas Co.'s No. 1 Esche, SE cor. NW Section 5-9s-76, Muleshoe district, is preparing to resume at a total depth of 2,465 feet.

Delta County

An operation not heretofore reported is Black Canyon Oil & Gas Co.'s No. 2, Lot 12, Section 5-15s-94, near the town of Delta. It is shut down at 330 feet while a larger rig is being installed. Its location is 75 feet from No. 1, which blew in at 580 feet in 1917 for approximately 35,000,000 feet of gas and which was drilled to 1,000 feet and abandoned. At the time carbon dioxide gas was not considered of value. Subsequently the well was opened up and Zero Carbonic Corp., of Denver, constructed a dry ice plant with a capacity of 12 tons of ice per day. This plant is idle at present due to the casing collapsing in No. 1 and shutting off the gas. As soon as No. 2 is completed, it is planned to resume operations. The gas is almost pure carbon dioxide, testing 99.9 per cent. The company proposing to manufacture dry ice figures on a pound of ice per each 8.56 cubic feet of gas.

Routt County

The Texas Company's No. 7 Quaintance-Hocking, NE SE Section 18-6n-86, Tow Creek, is bottomed at 3,640 feet and has cleaned out to 3,467 feet to drill deeper. The hole is caving badly. The 6⅝-inch is being carried at 3,478 feet. This operation was shut down for nearly two years.

El Paso County

Colorado Springs Oil & Natural Gas Co.'s No. 2 Carson, NW NE NE Section 10-16s-66, Fountain district, was delayed in running 8¼-inch at 2,000 feet by an accident in which one of the drillers received a bad cut on the head.

Montezuma County

Carl H. Smith and others' No. 1 West, NE NW NE Section 31-36-17w, McElmo Dome, spudded in a 12½-inch hole with cable tools on June 17 and proposes to go 5,000 feet to test horizons in the Pennsylvanian which showed oil and gas in a test drilled several years ago by Midwest Oil Co.

Rio Blanco County

The California Co.'s No. 1 Raven-California, NW SE Section 30-2n-102, Rangely Dome, is drilling at 5,466 feet. It is probably in the red beds. The objective is the Weber sandstone of Pennsylvanian age. Top of the Pennsylvanian is expected at around 5,900 feet.

WYOMING

Natrona County

Mutual Oil Syndicate's No. 2, C SW SE Section 14-35-79, Midway Dome, has shown no important change since 7-inch was run and cemented on top of the second Frontier at 5,233 feet. Plug was drilled out and hole bailed down to 3,000 feet without anything worth while showing. At that depth operations were temporarily shut down.

Lakota Oil & Gas Co.'s No. 5, NW NE Section 1-36-82, North Casper Creek, is preparing to set surface pipe. Total depth is 200 feet. Same company's No. 6, Section 36-36-82, is setting up machine and will go only to the gas sand at 1,100 feet.

This company is developing gas in the hope of supplying Casper, which is now served by the New York Oil Co. The Casper city council this week authorized steps towards obtaining a declaratory court decree on legal questions involved in the proposed acquisition of the distributing system by the municipality. It wants to know whether the city has the legal right to engage in the gas business, how and by whom the three appraisers appointed to determine the value of the system shall be paid and how much of the New York company's property, rights and contracts can be purchased.

Summitt Oil Co.'s No. 1 Trewitt, NW cor. Section 21-33-80, North Platte, is drilling below 1,400 feet after making a water shutoff.

Big Horn County

Considerable prospecting in the Big Horn Basin for green oil in fault blocks on the several faulted structures in that area is in sight. Lovell Dome Association's No. 1 Sheets, Lot 2, Section 9-55-96, Byron district, set the 15½-inch at 1,607 feet. This test by the W. P. Lipman interests of Portland, Ore., is in a fault block on the southern end of the Byron Dome.

Crosby and Huntington's No. 1 Denio Milling Co., Tract 43-C, Section 15-55-97, south of the shallow wells at Byron, is drilling below 700 feet and will carry 12½-inch for a water shutoff in the Eagle sand at 1,500 feet. It will then drill open hole to the Frontier at 3,500 feet.

Garland Syndicate (Pearson & Pratt) has made a location in the SE NE Section 15-56-98, for a test to be drilled this year on the north end of the Garland Dome in fault block. The Frontier is expected at 2,200 feet.

W. O. Taylor and others' No. 1 Hoskins, Lot 5, Section 25-56-97, south of a major fault across the Byron Dome, is rigging up. It will be drilled with rotary.

Fremont County

The Texas Company's No. 2 State-Ridgway, SE SW SW Section 36-34-95, Alkali Butte, is rigging up rotary.

Lander Corp.'s No. 2, NW cor. NE Section 35-33-99, Bartram Gap, (Weibolt and others) is reported abandoned at 2,690 feet after testing the Tensleep topped at 2,670 feet.

Ward Oil & Gas Co.'s No. 2, NE cor. Section 28-34-90, Dutton Basin, cored through 20 feet of stray sand topped at 1,980 feet and is drilling at 2,400 feet, near the top of the Frontier. Pipe will be set on top of the second Frontier, which in No. 1 had sufficient gas to blow the tools 800 feet up the hole.

Yellowstone Oil Co.'s No. 1 Gabus, SW cor. Section 14-38-94, Shoshoni district, is drilling at 1,700 feet.

Los Angeles people are reported preparing to drill a test in the SE Section 7-28-92, Kirk structure, in Crooks Gap district. It probably will be carried under the name of Premier Oil Co. This is in the same general area in which several tests have been drilled in the past and northwest of a location made last

(Continued on Next Page)

Wildcats in Virginia and in Southern West Virginia Nearing Scheduled Formations

By STAFF CORRESPONDENT

PITTSBURGH, Pa., June 27.—Productive completions fell off considerably during the past week in the eastern fields. Three gassers, two of which are good, and two producers, with an initial production of 1½ bbls., make up the total. Five dry holes were also reported. The completion figures of the previous week were seven gas wells, four oil producers and one dry hole.

Interest in the wildcat tests of Benedum & Trees in West Virginia and Virginia deepened as these operations near the scheduled formations. The test of these operators on the J. Kaufman farm on the waters of Guest River in Charleston district, Wise County, Virginia, has passed the 400-foot level. Good progress has been made in the drilling of the test on the Smith farm in Buchanan County, Virginia.

The operators, Benedum & Trees, are running casing in their test on the Pocohontas Coal Co. tract on the waters of Long Branch in Big Creek district, McDowell County, West Virginia Brehn & Co. have drilled their test on the J. M. Arnold farm on the waters of Holston River in Washington district, Washington County, Virginia, to 1,800 feet.

SOUTHEAST OHIO

The Southeast Ohio division of the eastern fields reported three dry holes and one oil producer with an initial production of 1 bbl. as the sum of completed work for the past week.

M. F. Whitehill found the Clinton formation dry at a depth of 3,350 feet in his No. 6 on the Boyer farm, SE Section 6, Hopewell Township, Muskingum County. There are a number of good producers on this farm.

Medina County reported two dry holes. E. R. Edson & Son Co. completed a dry hole on a very productive lease. It was No. 36 on the M. A. and Eva Franks farm on Tract 16, Lot 20, Chatham Township. The Berea grit was found dry after the hole had been drilled to 501 feet. The Preston Oil Co.'s test on the J. Hange farm was a disappointment after being drilled to 430 feet and the Berea grit formation. The Hange farm is in Section 6 of Harrisville Township.

R. W. Earley and others have a well showing for a 1-bbl. pumper in their test on the Emma Jeffers farm in Section 23, Madison Township, Licking County, after drilling to 695 feet and the Berea sand.

Washington County, Ohio

The heavy-rigged test of the Reno Oil Co. on the James H. Goodman farm, SE Section 14, Independence Township, southeastern Washington County, is on top of the sand at 3,062 feet. This test was sufficiently rigged to take it to the Niagara lime formation if no intervening production was found.

Eugene E. Grimm and others have reamed out the hole in their test on the E. E. Knowlton farm to 2,230 feet. The casing in this test, located in NW Section 10, Independence Township, was pulled out after drilling to 3,400 feet found all formations dry, and reaming begun after the operators decided to drill down to the Niagara Lime sand, expected to be found at a depth of 6,200 feet.

T. A. Witherspoon is drilling his old No. 1 on the Homer Courtney farm in Grandview Township, Washington County, down to the third Warren formation. This operation now stands at 2,340 feet. The Witherspoon well is 1½ miles north of the Crago farm test, and on the waters of Irish Run. It is also the only test drilling north of the discovery well.

WEST VIRGINIA

The West Virginia division added only one half-barrel oil producer last week, but two of its three gassers are good wells, one being a 2,000,000-footer and the other a 1,000,000-footer. One dry hole was also reported.

Deeds Oil & Gas Co. has a 2,000,000-foot gas well in its second test on the W. C. Keene farm in Geary district of Roane County, after drilling to a depth of 1,637 feet to find the Big Lime formation. The 1,000,000-foot well is also a second test, and the property of C. P. Jones. It was drilled on the G. T. Hill farm in Washington district, Boone County. This test is a Maxon sand gasser from a depth of 1,248 feet.

In Wayne County the Penn Natural Gas Co. has a fair gasser in its second test on the Guyan Valley Bank tract in Union district, after drilling to a depth of 3,542 feet and shale.

West Virginia's lone producer is a half-barrel well on the C. E. Vandevender farm in Clay district, Wirt County, and the property of W. C. Patterson. This is No. 19.

Fred Moorehead abandoned his No. 8 on the J. W. Hickman farm in Burning Springs district, Wirt County, after drilling 175 feet.

Drilling in West Virginia

West Penn Gas Corp. is shut down with the bit in the hole on the Wood Kimble farm in Battelle district, Monongalia County, at a depth of 2,580 feet. Pennsylvania Counties Gas Co. is still fishing for tools at 1,040 feet on the J. L. Jamison farm in Grant district, same county, and in Clay district, the Pedlar Run Oil Co. is shut down at 2,570 feet on the Lewis R. Hess farm.

F. E. Shuck and others are shut down at 675 feet in their No. 10 on the W. H. H. Wheaton farm in Burning Springs district, Wirt County. In Clay district of the same county, Baker and Brian have constructed a rig on the D. P. Higgins farm. In Reedy district, the Heck Oil Co. remains shut down in its No. 3 on the J. E. and J. G. Watkins farm at 400 feet.

In Calhoun County, the Crummies Creek Fuel Corp. has reached 845 feet in a second test on the L. R. Harless farm in Lee district.

Bradley, Ridgway, Kirk and others' test on the W. H. Ridgway farm in Clay district, Ritchie County, has reached 100 feet. In the same district, Ross Richards and others are fishing for their tools at 1,000 feet on the L. E. Robinson farm. Mary Osbourne Oil Co. has reached 800 feet on the M. R. Osborn farm in Murphy district, and the test of the King Knob Oil Co. on the Albert Carpenter farm has passed the 1,115-foot level. The test of R. C. Jackson on the Rutherford heirs farm in Grant district is 1,445 feet.

The test of the Southern West Virginia Gas Co. is shut down for orders after being drilled to 618 feet on the A. W. Preston farm in Union district, Wayne County. Wayne United Gas Co. remains shut down in its No. 40 on the A. W. Wilson heirs farm in Lincoln district of the same county. This well had reached 1,720 feet.

Delaware Gas Co. is shut down at 2,400 feet in a second test on the Reynolds heirs lease in Eagle district, Harrison County, and the report on the test of Fry and McCracken on the Clinton E. Fry farm in Cameron district, Marshall County, is the same, but at 2,000 feet.

In Gilmer County James A. Tierney is drilling at 960 feet in a second test on the F. G. Hardman farm in DeKalb district. Charles Smith has passed the 300-foot level in No. 4 on the Blaine Casteel farm in Union district, Wood County.

Merritt's Creek Gas Co. is drilling at 830 feet on the Ohio River Land Co. tract in Barboursville district, Cabell County, and has made a location for its second test on this tract. The same operator is moving a machine for No. 3 on the Hans-Watts Realty Co. tract in this district.

In Sheridan district, Calhoun County, the second test of the Conservation Oil & Gas Co. is shut down for orders after being drilled to 2,140 feet on the James Kerby farm.

A depth of 450 feet has been reached in No. 3 on the Martha Johnson farm in Union district, Tyler County. This well is the property of Howard Hall and others. Ohio Oil & Gas Co.'s test on the A. D. Arnett farm in Meade district has reached the 3,000-foot mark.

SOUTHWEST PENNSYLVANIA

The only operation completed in the Southwest Pennsylvania division was a dry hole on the J. P. M. Ramsey farm in Hanover Township, Beaver County. This No. 6 well belonging to C. T. Andrews and others had a slight showing of oil.

D. L. Shafer & Co. remains shut down on the William Jones farm in Wayne Township, Greene County, after having reached 850 feet.

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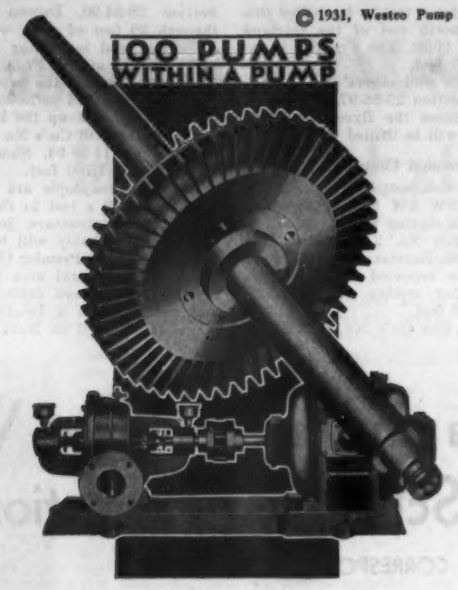

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Liquid enters the Westco Pump at the suction intake where it finds its way to the bottom (or inlet) of the impeller vanes. By centrifugal force, the direction of flow is through the vanes to the periphery of the impeller and then into the pump channel. The pump channel is so shaped that the liquid is directed back to the bottom (or inlet) of other vanes on the impeller. Thus, additional energy is imparted to the liquid. Of course, there is also a forward flow around the pump channel in the direction of the impeller's rotation.

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WESTCO *TURBINE* PUMPS

SINGLE STAGE—HIGH PRESSURE

March by Tropic Oil Co., of Salt Lake City, for a test on the north flank of the Lost Soldier Field.

Park County

Henderson Producing Co.'s No. 10, SW NE NE Section 31-58-99, in a 640-acre fault block south of the Elk Basin Field, is building rig. Location was made by Petroleum Information, Inc., Denver. The new location was made on geological information furnished partly by several wells drilled in the block by the company in the past two years, some of which had good shows of oil and gas.

Washakie County

Bales Oil Trust's No. 1 Brome, NE NW Section 31-48-80, Hidden Dome, is bottomed at 1,200 feet and rigging up to drill out cement after setting pipe at 1,100 feet. It was shut down for the winter.

Carbon County

Prairie Oil & Gas Co.'s No. 1, SE cor. SW Section 29-27-89, Bunker Hill, is preparing to abandon after testing all horizons down to the top of the red beds. The Frontier, the last horizon tested while plugging back, showed some oil and gas, but not in commercial quantities. It was drilled to a total depth of 6,791 feet.

Midwest Refining Co.'s No. 27 Union Pacific, NW SE SE Section 11-20-81, Elk Mountain, is drilling at 4,004 feet (corrected) in shale and bentonite.

Sublet County

California Petroleum Corp.'s No. 6-L, SE cor. SW Section 34-27-113, La Barge Field, is drilling at 535 feet in rotten gray lime, and its No. 7-H, Lot 10, Section 3-26-113, is still a location.

Sweetwater County

Wyoming-California Petroleum Co.'s No. 1, SE SE Section 23-17-104, Baxter Basin, is drilling and coring at 3,515 feet and feeling for the Dakota. It will be carried to the Sundance.

Uinta County

Park City Oil & Gas Co.'s No. 1 Christensen, NE cor. Section 6-15-113, Lyman district, is trying to shut off water at 2,968 feet, where it had a good show of oil and gas.

Weston County

Operations in the Osage Field were seriously handicapped by a storm which tore out bridges and held up traffic. A few shipments of crude from the field are being made to Mountain States Refining Co. at Orchard, Colo. These comprise two or three cars per week. The Mountain States company formerly obtained its production from the Greasewood Field, but its shipments stopped on May 17 when Continental Oil Co. contracted for the entire output.

One completion was reported in Charles F. Martens' No. 17, CNL NW SE Section 19-46-63, which found sands at 1,347-50 and 1,357-63 feet. After a shot it filled up 500 feet over night and will pump 20 bbls.

Carl Cundy's No. 3, NE NW NE Section 31-46-63, is drilling at 500 feet and the General Oil Co.'s No. 1, SW cor. NW Section 15-46-64, is rigging up standard rig. Central Oil Co.'s No. 1, NE cor. SW Section 15-46-64, is skidding rig, and Lambie Oil Co.'s No. 8 Bock, SW cor. NW Section 14-46-64, cemented pipe and shut down. Chadron-Osage Oil Co.'s No. 17, SW NW SW Section 14-46-64, is running the 6⅝-inch on the top of the sand, and Riggs Oil Co.'s No. 2, SE NE Section 14-46-64, is spudding. Federal Oil Co.'s No. 3, SE NE SE Section 15-46-64, is rigging up, and West Osage Oil Co.'s No. 3, SE NW SE Section 13-46-64, is drilling at 1,200 feet. Yellowstone Oil Co.'s No. 2, NE NW Section 23-46-64, cemented the 8¼-inch and shut down.

Julius Peters and others' No. 1 Witzell, SE cor. NW Section 30-46-64, Fiddler Creek, is drilling at 4,180 feet, and Gose Oil Syndicate's No. 1, NE cor. Section 28-47-63, Soda Creek, is resuming at 5,050 feet.

Niobrara County

Continental Oil Co.'s No. 4 Rohlf, NW SW SW Section 32-36-65, Lance Creek, is bottomed at 3,055 feet and underreaming to carry the 6¼-inch.

Converse County

Ohio Oil Co.'s No. 25 Kinney, SE SW SE Section 4-33-76, Big Muddy, is drilling at 1,615 feet in shale, and Continental Oil Co.'s No. 30 Glenrock Sheep, SW SE SE Section 4-33-76, is drilling at 3,645 feet after cementing off the Wall Creek at 3,220 feet with 8¼-inch.

MONTANA

Carbon County

The situation at Carbon Oil & Gas Co.'s No. 1 Armstrong, SW cor. NW Section 7-7s-22, Dry Creek is confusing, due to contradictory reports. Both are from reliable sources, but probably of different dates. This well came in early this year for 1,800 bbls. daily and marked an important extension of the pool. Recently it began to show some water and crew was moved in to attempt to shut it off. One report is the production was successfully brought back and the well flowed 240 bbls. the first two hours and then was pinched to 500 bbls. per day. The water, according to this report, came from an upper formation when a former cement job failed to hold. The other report says part of the production has been recovered and that the well is making 200 bbls. per day. The water is coming from the bottom and the hole will be recemented in an effort to shut it off.

Ohio Oil Co.'s No. 12 Kobal, C SW SE Section 10-7s-21, is a location. Same company's No. 7 Robinson, C SE SE Section 3-7s-21, is drilling at 5,086 feet in shale and is nearing the Dakota. Its No. 8 Caldwell, SE SW NE Section 12-7s-21, is drilling at 5,456 feet near the top of the Greybull sand, and its No. 11 Bowman, C SE NE Section 4-7s-21, is drilling at 2,425 feet in shale.

Glacier County

A new location in the Cut Bank district was reported in The Texas Company's No. 1 Carl E. Peterson, SW NE SE Section 22-36-5w. It is digging cellar and moving in rig. The location is about half a mile east of L. B. O'Neil's No. 1 Cummings, completed last November at 2,694 feet for 28,600,000 feet of gas. The Texas Company's well will prove up additional acreage.

Toole County

The Texas Company's No. 1 International Land Co., C S half SW Section 6-36-4w, Cut Bank district, northeast of the gas wells and the test being started by the same company in Glacier County, is drilling at 1,545 feet.

Imperial Natural Gas Co.'s No. 1 Danielson, C SW NW Section 21-35-1w, Kevin-Sunburst Field, is reported completed for 25 bbls. in the Ellis-Madison contact at 1,560 feet.

Cascade County

Charles Merz and others' No. 1 Sheffelt, SE NW Section 4-21-4e, Black Horse Lake, is drilling at 1,520 feet and will continue until it encounters oil or water. No water has been struck below 1,000 feet.

Teton County

California Co.'s No. 1 Sullivan, NW NE NW Section 34-27-7w, Bynum district, is drilling at 3,160 feet.

SOUTH DAKOTA

Wytex Oil & Gas Co.'s No. 1 Hamilton, Section 32-8n-1e, Oak Creek Dome, is drilling at 900 feet and still in the Spearfish, or red beds.

UTAH

Utah Southern Oil Co.'s No. 1 Balsey, C NE NE Section 31-23-21, Grand County, has resumed after drilling by tools at 5,369 feet and cementing them in the walls.

WASHINGTON

Ohio Oil Co.'s No. 1-A Robinson, Section 5-17n-9w, Gray's Harbor County, is straightening crooked hole at 1,629 feet.

Summary of Operations in California Oil Fields for May, 1932

According to figures collected by the American Petroleum Institute, Pacific Coast office, the total production of crude in California for May amounted to 15,575,741 bbls., an average of 502,443 bbls. per day. This is a decrease of 15,038 bbls. per day under April production.

Total stocks of crude and all products in Pacific Coast territory increased during the month 372,178 bbls. The total stocks at the end of the month were 171,148,961 bbls. The total stock increase for 1932, up to May 31, was 1,913,012 bbls.

CRUDE PETROLEUM PRODUCTION

	Barrels per month	Daily average May, 1932	Daily average Apr., 1932	Daily average May, 1931
Group No. 1:				
Coalinga	328,237	10,588	10,470	8,472
Elk Hills	395,447	12,756	12,643	14,618
Fruitvale	136,449	4,402	4,014	2,271
Kern River	300,281	9,687	10,015	11,296
Kettleman Hills—North Dome	1,821,110	58,746	60,134	38,369
Kettleman Hills—Middle Dome	3,850	124	223	.....
Lost Hills-Belridge	277,210	8,942	9,278	6,154
McKittrick	54,449	1,756	1,886	1,995
Midway-Sunset	1,545,948	49,869	50,795	53,240
Mount Poso	241,654	7,795	7,925	7,914
Round Mountain	127,454	4,111	2,969	277
Wheeler Ridge	16,583	535	535	535
Group No. 2:				
Capitan	.....	.....	103	.....
Elwood	494,712	15,959	16,877	34,910
Rincon	52,670	1,699	1,521	1,920
San Miguelito	14,048	453	443	.....
Santa Barbara	8,529	275	270	552
Santa Maria	108,136	3,488	2,941	3,004
Summerland	3,444	111	107	164
Ventura Avenue	936,428	30,207	29,371	43,508
Ventura-Newhall	111,986	3,613	3,627	3,770
Watsonville	1,937	63	62	62
Gorup No. 3:				
Coyote	311,868	10,060	10,416	10,005
Domingues	732,409	23,626	31,914	11,578
Fullerton (Brea Olinda)	248,440	8,014	8,329	10,008
Huntington Beach	690,965	22,289	22,278	21,533
Inglewood	424,385	13,690	13,813	16,124
Lawndale	9,807	316	317	301
Long Beach	2,489,393	80,303	82,145	85,985
Los Angeles-Salt Lake	34,607	1,116	1,129	1,358
Montebello	201,636	6,504	6,431	7,005
Newport	.....	.....	.....	34
Playa Del Rey	543,509	17,533	17,773	29,082
Potrero	15,331	495	576	549
Richfield	189,550	6,115	6,499	6,870
Rosecrans	92,139	2,973	3,100	3,731
Santa Fe Springs	1,977,814	63,800	66,305	72,040
Seal Beach	401,834	12,962	12,597	13,831
Torrance	197,448	6,369	6,423	6,217
Whittier	34,053	1,099	1,226	1,330
Total May	15,575,741	502,443	517,481	530,612
Total April	15,524,444	517,481	.....	.....
Decrease	*51,297	15,038	.....	.....

*Increase

TOTAL STOCKS HELD BY CALIFORNIA OIL COMPANIES, BOTH INSIDE AND OUTSIDE THE UNITED STATES

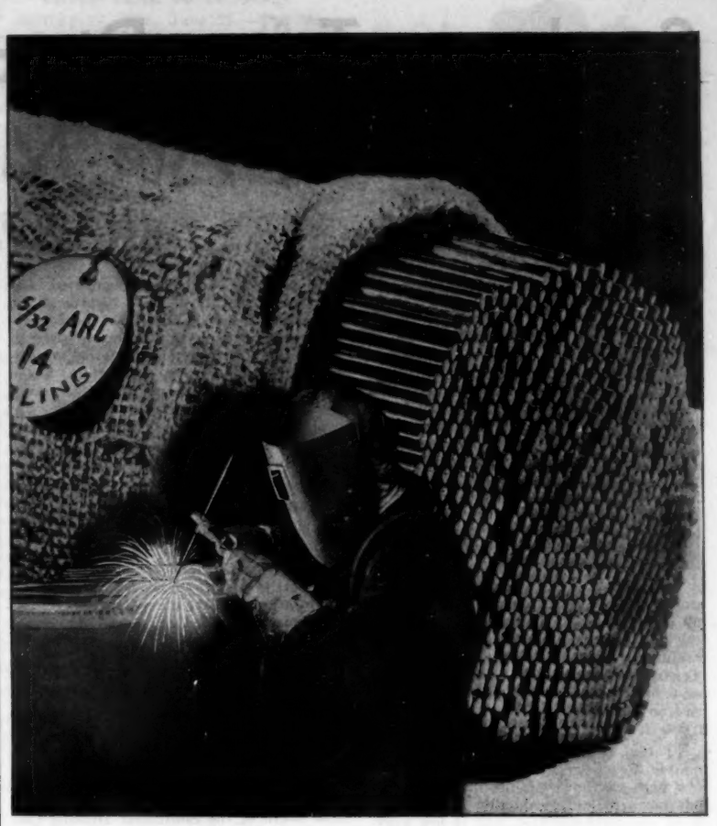
	May 31, 1932	Apr. 30, 1932	May stock increases	May 31, 1931
Heavy crude and all grades of fuel, gas, and Diesel oils	98,859,851	98,116,932	742,919	102,327,766
Refinable crude	42,621,571	42,434,600	186,971	44,464,035
Finished gasoline, engine distillate and natural gasoline	17,912,002	18,442,175	*530,172	16,689,288
Crude gasoline and naphtha distillates	4,776,867	4,491,020	285,847	2,886,471
All other stocks	†7,578,669	‡7,892,056	*313,387	§9,399,971
Total all stocks	171,748,961	171,376,783	372,178	175,767,531

*Decrease. Barrels of coke included: †662,837, ‡662,291, §703,241.

OIL FIELD DEVELOPMENT

	New rigs up	Active drilling	Producers completed	Daily initial output	Active producing	Abandoned wells: Drillers	Abandoned wells: Producers
Group No. 1:							
Coalinga	...	...	...	.....	669	...	...
Elk Hills	...	...	...	.....	210	...	...
Fruitvale	4	5	...	.....	31	...	...
Kern River	...	...	1	150	952	1	...
Kettleman North Dome	...	12	...	.....	23	...	...
Kettleman Middle Dome	1	2	...	.....	.....	...	...
Lost Hills-Belridge	1	2	...	.....	156	...	...
McKittrick	...	2	...	.....	105	...	...
Midway-Sunset	...	3	...	.....	1,801	...	...
Mount Poso	...	1	...	.....	88	...	...
Round Mountain	1	1	1	250	15	...	...
Wheeler Ridge	...	...	...	.....	34	...	...
Group No. 2:							
Elwood	...	2	...	.....	39	...	...
Rincon	...	...	...	.....	33	...	...
San Miguelito	...	1	...	.....	2	...	...
Santa Barbara	...	1	...	.....	4	...	...
Santa Maria	...	2	...	.....	174	...	...
Summerland	...	...	...	.....	60	...	...
Ventura Avenue	...	7	...	.....	131	...	...
Ventura-Newhall	1	4	...	.....	427	1	...
Watsonville	...	...	...	.....	6	...	...
Group No. 3:							
Coyote	...	...	2	369	154	...	...
Domingues	...	3	1	1,050	73	...	...
Fullerton	...	1	...	.....	362	...	...
Huntington Beach	...	...	1	100	366	...	...
Inglewood	...	1	1	160	214	...	...
Lawndale	...	...	...	.....	6	...	...
Long Beach	...	6	1	120	953	1	2
Los Angeles-Salt Lake	...	...	...	.....	260	...	...
Montebello	...	...	...	.....	174	...	2
Playa Del Rey	...	1	1	1,470	183	...	...
Potrero	...	3	...	.....	12	...	...
Richfield	...	...	...	.....	149	...	...
Rosecrans	1	1	...	.....	64	...	...
Santa Fe Springs	...	...	...	.....	490	...	2
Seal Beach	1	...	1	504	109	...	...
Torrance	...	...	...	.....	376	...	...
Whittier	...	...	...	.....	160	...	...
Miscellaneous drilling	3	54	...	.....	.....	7	...
Group No. 4:							
Buttonwillow gas field	2	1	1	Gas	1	1	...
Dudley Ridge gas field	2	4	...	.....	.....	...	...
Total May	17	120	11	4,113	9,086	11	6
Total April	15	117	24	26,038	9,118	14	12
Decrease	8	*3	13	21,925	52	3	6
Average for year 1931	32	207	21	30,370	8,911	20	15
Average for year 1930	80	434	63	48,710	9,632	21	27
Average for year 1929	109	610	76	100,625	10,550	26	18

*Increase.



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THE CUSTOM-MADE WELDING WIRE—FOR EXACTING WELDERS

Southwest Texas Discovery Wells, Reported Last Week, Are Making Good Records

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., June 27.—Discovery wells reported last week are looking better. Philip Rosenberg's No. 2 Laurel, in approximately the center of Survey No. 271 in Webb County, a few miles southwest of the Carolina-Texas Field, completed early last week, is good for around 350 bbls. daily, with no water, at a total depth of 2,244 feet, 4 feet in the sand. The oil is 49.5 gravity and analyzes 69 per cent gasoline. The acreage around the test seems to be under lease almost exclusively to independents. The Carolina-Texas Field about 3½ to 4 miles northeast has several sands proven to either gas or oil, two sands at 2,600 feet and 3,000 feet producing high gravity oil.

In the Mirando City Field, approximately 5 miles due south, there are a few high gravity wells around 1,900 feet, but the principal production in that field is at around 1,650 feet, and is low gravity. The new field lies adjacent on the west to the Reynosa Escarpment as do the Mirando and Carolina-Texas Fields.

There is likely to be active trading in the new field because of the acreage being under lease to independents, but no deals are reported closed and no drilling programs announced yet. The production in Philip Rosenberg's No. 2 Laurel is much larger than that in the Carolina-Texas Field.

Sal-Mar Pool in Guadalupe

The Sal-Mar Oil Co.'s No. 1 Zunker, in the southeast corner of the L. Bollinger Survey, 6 miles east of Seguin, is being opened for an hour every day and flows 11 bbls. during the hour. This is better production than at first reported and some are now estimating that the well will produce 500 bbls. a day if on steady production. It topped the chalk at 2,022 feet and the total depth is 2,042 feet. Having a sulphur odor and all the appearance of the crude from the Edwards lime in the Luling Field there is a belief that the oil is being fed from the Edwards through a crevice as the chalk never has made big producers except from crevice wells.

However, six additional tests are to be drilled at once in all directions from the discovery well. They are limited to drilling into the chalk, being on acreage farmed out by the Sal-Mar Oil Co. and these soon will disclose what sort of field it is.

While the crevice idea seems the most generally held because of other crevice wells in the Balcones Fault zone, it is remembered that the discovery well of the Salt Flats or Bruner Field, drilled by Joe Bruner, was a chalk well and the second well in the field, by Golden West Oil Co., also a chalk well, produced for a time around 450 bbls. a day. Corrected depth steel line measure on the top of the chalk in the No. 1 Zunker is 2,022 feet. It was first reported at 1,996 feet. Casing was set at 1,991 feet which gives it 21 feet of the base of the Taylor and 20 feet of chalk to produce from.

Duval County

Conditions improved at both ends of the Government Wells district the last week. The Magnolia Petroleum Co.'s No. 1 Ruiz, in the Sarnosa Pool at the south end, the third oil well completed and starting off a little light as to production, came up, but was discovered to be producing through about 600 feet of sand in the bottom of the hole, and the production was coming from the bottom. When this is cleaned out and screen set with the bottom closed the production will probably be shown as great as the first two wells and the discovery well came in producing at the rate of around 2,000 bbls. a day.

At the north end of the field the Magnolia Petroleum Co.'s No. 1 Wendt, a north offset to the Suttle No. 1 Bennett, discovery well in the second sand, also started a trifle light as compared with the Suttle well, but gauged 26 bbls. an hour later, and later reports though unconfirmed indicated it would do better than that.

The Southwest Drilling Co.'s No. 1 Wendt, half a mile west and half a mile south of Suttle, with total depth of 2,291 feet, started off with gas and it was reported probably would make a gas well, but after drilling in it was swabbing with the hole full of oil to around 700 feet of the top. The Coffield No. 1 Wendt, half a mile west of Suttle and half a mile north of the Southwest Drilling Co., with total depth of 2,290 feet, was bailing and also may make a good oil well. It was reported as testing gas before it set casing. The Coffield No. 1 Wendt is just a quarter mile south and one location west of the Seacord & Putnam No. 1 Johnson, the discovery well of that district and producing gas and oil from sand at 1,567-74 feet.

The Coffield and Southwest Drilling Co. wells are giving the field additional width to the west and the Petroleum Finance Corp.'s No. 1 Hahl, 300 feet east and half a mile south of the Southwest Drilling Co., which brings it a mile south and half a mile west of Suttle, late in the week was 4 feet in the sand at 2,282-86 feet and within a few days it ought to be able to tell much as to the extension of the field to the south in the direction of the main pool. Tests are drilling to the northeast also.

Returning to the south end of the Government Wells district in the Sarnosa Pool, Hynes and Nessly have made location for No. 1 Weil, 2,860 feet from the northeast line of Survey 130 and 200 feet from the northwest line of the survey which throws it approximately 4,000 feet due south of the Sun Oil Co.'s No. 1 Cuellar (Cano), which is one of three oil wells and one gas well offsetting each other that constitute the field. The Hynes & Nessly test was expected to spud in this week. The only other test in this area is the John F. Camp No. 2 Weil, about 1 mile due south and slightly west of Hynes & Nessly. Thomas & Tarver, Inc., have a location about 2,500 feet south and 500 feet west of Sun's No. 1 Cuellar. Hence everything in this district at this time is to the south of the producers.

Starr County

Two important tests in southern Starr County were still unsettled at the close of the week. Gulf Coast Oil Co.'s No. 1 Frank Doyno, 2,500 feet north of the discovery well of the Rio Grande City Field and up to this time its only producer, drilled in last Thursday night and the returns were oil, gas, mud, pieces of cement, shale and other things. It is evident the cement failed to set properly and Rio Grande City was much disappointed. The well showed a lot of "kick" it is said and there is much confidence that if a good cement job is had it will make an oil well. It had 9 feet of sand at 1,440-49 feet, but with difference in elevation making it correspond to the sand at 1,382-87 feet in the discovery well.

The R. E. Johnson No. 1 Seabury, 1½ miles west of the discovery well of the Rio Grande City Field, and thought to have a chance to open a new field and in a different sand at 1,700 feet where it had a good 7-foot core, was still untested. These two tests are the main features of the Starr County situation at this time though some progress was reported on the various wildcats getting started in the western part of the county.

Southern Colorado

Coyle-Concord Oil Co.'s No. 1 Stewart, in Survey 43, in southern Colorado County, rigged up with the rig that drilled the world's deepest producer in the Big Lake Field, blew in gas from sand at 3,799-3,812 feet and cleaned the hole but was shut in by the blowout preventer. The well was killed only by the use of baroid, but an attempt to get a drill stem test failed, owing to the seat giving way. It is now ratholing and coring deeper. It is estimated that it had a pressure of 2,000 pounds. A feature of this well is that it has been finding plenty of sands and plentiful thickness of sands, much more than in any of the few other tests ever drilled in the county. One sand was 116 feet thick which is described as more than the same sand in all the other tests ever drilled in the county put together. There is expectation that this test within another 1,000 feet may find big oil production.

Brooks County

Allen & Morris seem to have proven two sands in northwestern Brooks County in the Palo Blanco Pool district about a quarter of a mile west of where the Houston Oil Co. drilling for gas on Humble Oil & Refining Co. lease on the Lasater land brought in two 40,000,000-foot gas wells, one at 3,814 feet and one at 4,112 feet.

Allen & Morris completed their No. 2 Holbien-Wormser last week in sand at 1,170-90 feet for around 20,000,000 feet, maybe more. It was not gauged. Shortly before this they lost their No. 1 Holbien-Wormser, one location away, when it blew in at 1,819 feet and ran wild. Half the drill stem dropped back into the hole. The No. 1 did not have the shallower sand. Some additional drilling was done around the Houston Oil Co.'s tests, but with indifferent success. Allen & Morris will move a little west for their next test and will mud off the shallower showings and aim to pick up oil production at around 4,200 feet, in the sand producing in one of the Houston Oil Co. tests.

Pettus District

Slick-Seeligson's No. 6 Ray, 450 feet north of production in the Pettus west extension, reported recently as completed and estimated at 300 bbls., later gauged 372 bbls. and has now increased to where

Wildcat Operations in Southwest Texas

Week Ending June 25

ATASCOSA COUNTY

Company, farm and location—	Remarks:
American Central Oil Co.'s No. 2 Mary McConnell, 150 ft. W of E line, 300 ft. S of No. 1, Blk. 128, W. C. M. Baker Sur., 3 miles W and 6 miles S from Somerset	T.D. 1,660 ft.; standing.
Glen Mathis' No. 2 Mrs. C. Martin, 100 ft. SE of No. 1	T.D. 2,930 ft.; standing.

BANDERA COUNTY

F. A. Brown's No. 1 R. B. Watson, 600 ft. N of cen. of S line of Sec. 71	T.D. 70 ft.; drlg.

BEE COUNTY

Humble O. & R. Co.'s No. 1 Laura Thompson, 6,360 ft. from N line, 15,100 ft. from W line of tract in Garrett Roache Sur., S part of county	T.D. 5,845 ft.; drlg.
J. L. Mauldin's No. 1 Kimball, 300 ft. NE of Grayburg Oil Co.'s No. 1-A Kimball in S. Winship Sur.	Abnd. loc.
C. F. Nichols' No. 1 J. P. Harris, Durango grant east of Tuleta	T.D. 3,500 ft.; drlg.
Texas Gulf Producing Co.'s No. 1 Webb Hearn, 1,000 ft. N, 43 degrees E, thence 300 ft. NW at right angles from Hurlburt's No. 1 Wood in P. T. Irrigation Co. Sur.	T.D. 5,840 ft.; drlg

BEXAR COUNTY

Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,920 ft. to N line of tract, 13 miles SW of San Antonio	T.D. 810 ft.; S.D.
Lloyd Bender's No. 1 Suburban Irrig. Farms, 300 ft. No. of cen. of N line of K. K. Herring tract, 1 mile E of Kirk ¼	T.D. 1,900 ft.; abnd.
S. W. Blount's No. 1-A S. A. Land & Dev. Co., 10 ft. from No. 1 in I. Peres Sur.	T.D. 900 ft.; drlg.
Eckert et al's No. 1 Edwards, 150 ft. to N and W lines of farm in Martinez Sur.	T.D. 2,015 ft.; drlg.
Moore-Jauer's No. 1 Holly R. Ellison, 2,916 ft. from E line, 1,500 ft. from S line of farm in T. York Sur.	T.D. 2,170 ft.; whipstocking.
Jones & Voltz' No. 1 Bonkowsky, 150 ft. to N and W lines of William McMeneses Sur., 12 miles E of San Antonio	T.D. 907 ft.; standing.
Dr. Ewell Neil's No. 1 J. Watson, 500 ft. from W line, 1,700 ft. from S line of B. Martinez Sur.	T.D. 2,495 ft.; in Edwards, dry.
Schneider, Rees et al's No. 2 Claussen, 12 miles NE of San Antonio	T.D. 1,330 ft.; S.D.
C. J. Webster Oil & Gas Co.'s No. 1 San Antonio Suburban Irrigated Farms, 200 ft. from S and W lines of Farm Lot 2, Blk. 49, in SW Bexar County	Rigged up.

BROOKS COUNTY

Allen & Morris' No. 1-A Holbien-Wormser, skidded rig a few feet from No. 1	T.D. 1,190 ft.; comp. 20,000,000 ft. gas.
Ed East's No. 1 A. Garcia, 400 ft. from N and E lines of 2,148-ac. tract in SW part of county	T.D. 962 ft.; S.D.
M. P. Evans' No. 1 J. M. Martinez, 200 ft. from N and W lines of Blk. 11, Sec. 4, La Encantada Sur.	T.D. 2,000 ft.; drlg.
F. G. Stearns' No. 1 Mrs. B. Myrick, 610 ft. W, 150 ft. S of NE cor. of Lot 2, Blk. 2, Falfurrias Farm and Garden tracts 2 miles N of Falfurrias	T.D. 1,315 ft.; abnd.
Otto Wood's No. 1 Matilda Martinez, 2,230 ft. from E line, 3,070 ft. from N line of Longoria League	T.D. 300 ft.; drlg.

(Continued on Page 69)

it was flowing at last reports 425 bbls. daily. This week, The Texas Company is rocking in its No. 5 Gremmel which is a west offset to Slick-Seeligson's No. 6 Ray and acting much like the No. 6 Ray.

Saxet Field

The Saxet Field now has an additional pipe line outlet. The Houston Oil Co. has been running its oil to the Humble pipe line which traverses the west edge of the field. The Gulf Coast Pipe Line Co. (William F. Morgan) completed three tanks on the Corpus Christi turning basin and built a few miles of line from there west to the Saxet Field and is running the oil from the Gulf Coast Oil Co. (an affiliated company), wells and from the Rutherford No. 1 Hunter and the Tule Lake Oil Co.'s No. 1 Hocker & Sevier. From the pipe line preparations there is expected to be additional development of the oil production of the field.

During the last week some additional locations were made and offsets to the Tule Lake Co.'s No. 1 Hocker & Sevier, and the Rutherford No. 1 Hunter will be necessitated in addition to the new locations announced.

Miscellaneous

John F. Camp and others are starting a deep test in the Lobo gas field in Live Oak County, 3 miles west of Three Rivers on the L. F. Reagan farm where the discovery 963-foot gas well was brought in several years ago by the Lobo Oil & Gas Co.

Four 4,500-foot tests have been contracted for on an 8,000-acre block in northwestern Hidalgo County, the next county east of Starr, on the San Roman Survey. One test, the San Roman Oil Co.'s No. 1 J. T. Lomax, was started several months ago, but after setting surface casing at 486 feet has been standing. The test is carried by some as the W. A. Taylor No. 1 Lomax. Booth McCarson of Boling, Tex., is interested in it.

The Heard & Heard (Sioux Oil Co.) No. 1 Goodrich, discovery well of the Rio Grande City Field, is pumping 65 bbls. of oil daily.

Bob Rose's No. 1-B Walker, a mile north of his No. 1 Pierce, discovery well of the Dunlap Pool in Caldwell County, set casing at 1,720 feet and had a showing at 1,760-65 feet and it looked as though it had a fair chance to make another producer, the first at some distance from the discovery well.

John F. Camp and the Stanolind Oil & Gas Co.'s No. 2 King, in western Nueces County, came in for around 30,000,000 feet of gas at 3,914-25 feet, a well of about the same size as their No. 1 King, the discovery well. They may decide to continue drilling in the No. 2.

It is reported again for about the sixth time that the construction of the pipe line from the Los Olmos shallow field in Starr County, 8 miles to the railroad track at Rio Grande City, is to start at once and be completed in 10 days.

START MICHIGAN LINE

MOUNT PLEASANT, Mich., June 27. Construction of an 8-mile oil pipe line from the east extension pool to North Bradley was started last week by the Producers Pipe Line Co., recently organized. The line is to convey crude to loading racks at North Bradley, where shipments will be made by railroad tank cars to refineries. The line will be of 3 and 4-inch, involving an expenditure estimated around $15,000. It is expected to be completed within 10 days. Officers of the company include John Borden, president, head of the Old Dutch Refinery; H. D. Atha, vice president, general manager of the Gordon Oil Co.; Henry Highlehimmer, treasurer, Gordon Oil Co. official, and Burks White, secretary, independent producer.

DEATH OF MRS. BROOMFIELD

Mrs. Ellen Broomfield, 85 years of age, mother of R. A. Broomfield, president of the Barnsdall Oil Co. of California, died at Buffalo, N. Y., and was buried in Brantford, Ontario, where she made her home a number of years.

INTERNATIONAL OUTPUT PERU AND COLOMBIA

CHATHAM, Ontario, June 25.—An official statement has been issued covering operations of the International Petroleum Co. of Toronto in the South American fields for the months of April and May.

In Peru one new well was completed in April with initial production of 60 bbls. The total production in April was 545,430 bbls., while average daily production in May was 24,432 bbls. For the period from January to April, inclusive, three producing wells were completed, with average initial production of 49 bbls., while total crude production was 2,389,674 bbls.

In the Colombian fields there were no new completions in April. Total crude production for the month was 1,656,063 bbls., while average daily production for May was 54,269 bbls. In the January-April period two wells were completed with average initial production of 692 bbls., while total crude production for the same period amounted to 6,260,567 bbls.

COLON PRODUCTION

Production of Colon Oil Corp.'s subsidiary in Venezuela, for the week ended June 18, was 103,060 bbls.

THIRD LINE TO CONROE

HOUSTON, Tex., June 27.—The Moran Corp. of Houston is reported planning the laying of a 12-inch gas line from the new Conroe district to Houston, a distance of approximately 40 miles. If the line is laid, this will be the third company to have a line into Houston, the United Gas System having trunks both from Southwest Texas and from Northeast Texas and the Houston Pipe Line Co. one from Southwest Texas. The Moran Corp. recently completed the laying of a 4½-inch line from the discovery well at Conroe to the town of Conroe, where the company has the gas distribution franchise.

MIXED GAS IN NEW YORK

NEW YORK, June 27.—The New York State Public Service Commission has approved new rates, effective October 1, next, for mixed natural and manufactured gas used by customers of the Syracuse Lighting Co. in Syracuse and contiguous territory. The mixed gas will be supplied by a 16-mile pipe line, now under construction. The rates will be expressed in both therms and cubic feet, the company being required to bill consumers on both bases, although it had applied for permission to bill only on the therm basis, which has been adopted in other parts of the country.

Wildcat Operations in Southwest Texas

(Continued from Page 68)

CALDWELL COUNTY

George Sullivan and Shell Petroleum Corp.'s No. 1 Plinsoll, 2,300 ft. to SW line, 300 ft. to NW line of tract and survey in M. Dennis Sur. ..... T.D. 1,800 ft.; drlg.
Kistler, Stivers & Hendrick's No. 1 D. Carter, 400 ft. from NW line of Sur., 300 ft. NE of Creek in L. Allen Sur. ..... T.D. 1,485 ft.; standing in chalk.

COLORADO COUNTY

Coyle-Concord Oil Co.'s No. 1 Stewart Nelson in L&G.N. Sur. No. 43 ..... T.D. 3,800 ft.; gas, cleaned hole.
V. F. Neuhaus et al's No. 1 Mattyles C. Barnett, 220 ft. from W line, 330 ft. from S line of Subd. 26 of Obid K. Winn Sur. ..... Moving in.

DE WITT COUNTY

J. F. Richardson's No. 1 Virginia Taylor, 330 ft. from SE line of tract, 330 ft. NE of Minnehuilla Creek.... T.D. 700 ft.; drlg.
The Texas Co.'s No. 1 John McCrabb, 4,000 ft from SW line, 1,435 ft. from SE line of 794-ac. lease in James Quinn Sur. ..... T.D. 4,785 ft.; drlg.

DUVAL COUNTY

Aztec Oil & Royalty Co.'s No. 1 Peters, 750 ft. from E line, 300 ft. from N line of S 160 ac. of Sur. 322 ..... T.D. 1,500 ft.; coring.
Frank Gravis' No. 3 Schallert in Sur. 255 (Palangano salt dome) ..... T.D. 253 ft.; drlg.
Clark & Cowden's No. 1 Sutherland, 450 ft. from W line, 150 ft. from S line of Sur. No. 3 ..... Rigging up.
Harry E. Oliver's No. 1 Wood-Welder, 330 ft. from N and W lines of Sur. 213 ..... Abnd. location.
French Oil Corp.'s No. 1 G. W. Dutherland in Sur. 506.... Location.
O. W. Killam's No. 1 Peters, 150 ft. from E line, 450 ft. from N line of SE of Sur. No. 1 ..... T.D. 2,725 ft.; standing.
Plymouth Oil Co.'s No. 1 Parr, 6,250 ft. from W line, 1,925 ft. from S line of San Andres, Garcia grant ... Spudded in.
The Texas Co.'s No. 1 Peters, 2,330 ft. from N and W lines of Sur. 162 ..... T.D. 600 ft.; drlg.
The Texas Company's No. 1 Peters, 150 ft. from N and W lines of Sur. 162 ..... T.D. 1,693 ft.; drlg.
B. R. Thomas' No. 1 Wood-Welder, 300 ft. from S and E lines of Sur. 383 ..... T.D. 1,500 ft.

GUADALUPE COUNTY

John F. Camp's No. 1 Delaney, 2,572 ft. from S line, 1,515 ft. from W line of Delaney 400-acre tract in Jesus Cantu Sur. ..... Location.
J. E. Clark's No. 1 Hardin Clay, 450 ft. from SE line, 150 ft. from NE line of tract in F. Carajal Sur. ..... T.D. 2,657 ft.; abnd.

GOLIAD COUNTY

John F. Camp and Stanolind Oil & Gas Co.'s No. 4 Pettus, 1,000 ft. S and 55.5 deg. W of No. 1 Pettus .... T.D. 3,636 ft.; S.D.
Gulf Prod. Co.'s No. 1 J. O'Connor, 5,900 ft. from N line, 7,400 ft. from W line of D. Morris Sur. ..... T.D. 3,880 ft.; abnd
Hoffman & Gooch's No. 1 Fromme, 600 ft. from N and 1,200 ft. from W line of Peter B. Dexter Sur. ..... T.D. 2,470 ft.; standing.
Humble Oil & Ref. Co.'s No. 1 Fromme, 450 ft. from S line, 150 ft. from W line of lease on Geo. Kersey Sur.. T.D. 3,775 ft.; drlg.
Plymouth Oil Co.'s No. 2 Parks, 400 ft. S of No. 1 Parks in Solomon Parks Sur. ..... T.D. 5,137 ft.; waiting csg.
Neal et al's No. 1 J. M. Pettus, 10,700 ft. to S line, 2,500 ft. to E line of Pedro Trevino Sur. ..... T.D. 4,565 ft.; standing.

GONZALES COUNTY

Crowder Oil Co.'s No. 1 Preston, 1,000 ft. from W line, 2,000 ft. from N line of W. W. Pace Sur. ..... T.D. 200 ft.; standing.
Edmiston & Kirby Petroleum Co.'s No. 1 J. W. Ward, Jr., 200 ft. from N and W lines of tract in Dan McKay Sur. ..... T.D. 1,529 ft.; S.D
Johnson & Mattock's No. 1 J. James, 12 miles NE of Gonzales city, 900 varas from E line, 300 ft. from S line of tract in M. A. Williams Sur. ..... T.D. 3,000 ft.; pulled in derrick.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 4,590 ft.; shut down.
San Roman Oil Co.'s No. 1 J. T. Lomax, 7,600 ft. from S and E lines of San Roman Sur. ..... T.D. 500 ft.; S.D.
Dayle L. Smith's No. 3 Daskam, SW part of county..... T.D. 1,726 ft.; S.D.

JIM HOGG COUNTY

Clark & Cowden's No. 1 E. Vela, Share 1 El Peyote grant. Rigging up.
D. C. DeWitt's No. 1 Gomez, 1,1.0 ft. from N line, 150 ft. from W line of Sur. No. 12, SW part of county .. T.D. 1,457 ft.; to drill deeper.
E. J. Hough's No. 1 Hinnant, 150 ft. from S and W lines of Blk. 5, Sur. No. 20 ..... T.D. 2,850 ft.; coring for sand.
Randado Syndicate's No. 1 Randado townsite, Sur. No. 148 ..... T.D. 1,590 ft.; coring.

JIM WELLS COUNTY

F. A. Lain's No. 1 Vernon Porter, 300 ft. from S line, 400 ft. from W line of 200-ac. tract in Sur. 25 ..... Rebuilding derrick.

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The Oil and Gas Journal
Tulsa, Okla.

Mid-States Oil & Gas Co.'s No. 1 Wade, C Blk. 3, Wade ranch, NE part of county ..... Location.
S. J. Sloane's No. 1 W. Wade, 150 ft. SW of cen. of NE line of Lot 6, Blk. C of Wade ranch, C. Blanca Sur... T.D. 2,780 ft.; drlg.

KARNES COUNTY

A. E. Edmiston's No. 1 O. L. Cochran, 160 ft. from S line, 500 ft. from E line of farm in D. B. McConnell Sur. ..... T.D. 1,820 ft.; standing.
Nichols Oil Co.'s No. 1 Newberry, 210 ft. S, 60 de. E from Fort Bend Oil Co.'s No. 1 Newberry ..... T.D. 3,200 ft.; S.D.
Pickett et al's No. 1 D. E. Lyons in Victor Blanco Sur.... T.D. 3,422 ft.; drlg sandy shale.

KERR COUNTY

Eastland Oil Co.'s No. 1 Love, 600 ft. E of No. 1 Love in J. Martinez Sur. No. 1,594 ..... T.D. 600 ft.; drlg.
Evans & Gant's No. 1 E. Young, A. E. Burg Sur. 28.... T.D. 1,312 ft.; standing.
Verde O. & G. Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,923, Hamilton Sur., 4 miles from Center Point; T.D. 200 ft; carried to this depth and abandoned as Herber Oil Co.'s No. 1 J. D. Witt ..... T.D. 110 ft.; standing.

KLEBERG COUNTY

H. Carter et al's No. 1 R. H. Simmons, in Sec. 7, King Sur. No. 3 ..... T.D. 3,205 ft.; standing.

LA SALLE COUNTY

Frank Clark's No. 1 Coleman, 200 ft. from S and E lines of Blk. 15, Sur. No. 514 ..... T.D. 40 ft.; set surface pipe.

LIVE OAK COUNTY

Catlett & O'Neill's No. 1 H. D. Miller, 2,400 ft. from SW line, 6,125 ft. from NW line of Miller ranch in SE part of county ..... T.D. 3,215 ft.; S.D.
J. A. Harper's No. 1 fee, 2,130 ft. to N line, 510 ft. to E line of farm, J. Pointevant Sur. 37 ..... T.D. 592 ft.; S.D. for water.

LEE COUNTY

Paton Bros.' No. 1 C. A. Turner, 150 ft. from N line, 375 ft. from E line of tract in David Hudson Sur., 2 miles SE of Tanglewood ..... Resumed drlg. after setting surface csg.

MEDINA COUNTY

James Earle Greenleaf's No. 1 J. P. Nixon, 150 ft. S of C of N line of S half of NW of M. Derunge Sur. No. 528 ..... Moving in machinery.
Robertson Drilling Co.'s No. 1 Little, 2,350 ft. from N line, 1,500 ft. from E line of E. B. Rutledge Sur., southern part of county ..... T.D. 1,700 ft.; drlg.

MILAM COUNTY

H. W. Elliott's No. 1 Marek, 767 ft. from N line, 500 ft. from W line of 160-ac. tr. in B. Wickson Sur. ..... T.D. 3,400 ft.; sulphur water.
Keyser & Roberts' No. 2 Ward, 125 ft. NE of No. 2 Ward in Levi Taylor Sur. ..... Derrick.
Michaik & Clark's No. 1 Johnson, 60 ft. S of No. 1 Johnson on 100-ac. lease in Juan Jose Acosta Sur. .. T.D. 1,750 ft.; drlg.
Keyser & Nichols' No. 1 Irwin, 450 ft. from NW line, 150 ft. from NE line of 126-ac. tract in Levi Taylor Sur. ..... T.D. 200 ft.; drlg.

STARR COUNTY

Coastal O. & G. Co.'s No. 1 Kelsey-Bass, 448 ft. to N line, 150 ft. to W line of Tract 52, Sur. 2, Porcion 86.. T.D. 705 ft.; showing gas, setting surface csg.
Frank Dawson's No. 2 R. E. Margo, 632 ft. from N line, 816 ft. from E line of Blk. 5, Share 3-B of Subd. of Porcions 67-72 ..... Rigging up.
W. T. Gilman & Travelers Oil Co.'s No. 1 C. Ramos, 1,170 ft. from SW line, 1,470 ft. from NW line of Sur. No. 150 ..... Derrick.
H. C. Harter's No. 1 Gonsales, 990 ft. from N line, 1,150 ft. from E line of Share 62-B of Subd. of Porcions 70 and 71, Jurisdiction Mier ..... T.D. 275 ft.; drlg.
Frank LaBorde's No. 1 Juan Marroquin, 1,350 ft. from E line, 1,225 ft. from S line of Share 21 of W two-thirds of Porcion 75 ..... T.D. 620 ft.; standing.
Sinclair & Rutherford's No. 1 J. T. Canales, 150 ft. from S and W lines of Share 69 of W half of Porcion 79, Camargo ..... T.D. 420 ft.; drlg.
Smith et al's No. 1 Lopez, 200 ft. from E line, 1,000 ft. from S line of Blk. 20, Share 65 of Porcion 80, Jurisdiction Camargo ..... T.D. 190 ft.; drlg.
Stryalls Oil Corp.'s No. 1 M. E. Salinas, 155 ft. from N and W lines of lease in Porcion 80, Share 28 .... T.D. 2,115 ft.; standing.
Stryals Oil Corp.'s No. 1 H. Garza, 500 ft. from E line, 5,280 ft. from N line of Share 26, Partition of Porcions 67-72 ..... Location.
Strayhorn Oil Co.'s No. 1 Caffarelli, Porcion 10, 150 ft. from N and E lines of Share 19-A ..... Spudded in.
Stryalls No. Corp.'s No. 1 Margo, 150 ft. from N and E lines of Share 27 of Subd. of Porciones 80 and 81, Jurisdiction of Camargo ..... T.D. 210 ft.; drlg.
R. B. Suttle's No. 1 Guerra, 2,000 ft. to N line, 270 ft. to W line of Porcion 110 ..... T.D. 810 ft.; no report.
E. L. Williams' No. 1 L. G. Madrigal, 150 ft. from N and W lines of Share 5-A of Porcion 72 of Jurisdiction of Mier ..... T.D. 332 ft.; drlg.
Joss Williams' No. 1 Welch, 1,120 ft. to W line, 1,500 ft. to N line of tr. in Pedernal grant ..... T.D. 840 ft.; abnd.

TRAVIS COUNTY

C. R. Franklin et al's No. 1 J. Wilson, 160 ft. from N and W lines of farm in A. Alexander Sur. ..... T.D. 1,210 ft.; S.D.
Fritz Fiche' No. 1 Swedish, 2,350 ft. from NE line, 750 ft. from NW line of Thomas Smith Sur. ..... T.D. 900 ft.; S.D.
Ray & Orth's No. 1 Lundgren, 550 ft. from N line, 150 ft. from W line of 133-ac. tr. in L. Kimbro Sur. .... T.D. 550 ft.; fishing.

WEBB COUNTY

Blair & Livingston's No. 1 J. M. Garcia, 150 ft. from N and E lines of NE NW of Sur. 1,100 ..... Location.
Phillips Rosenberg's No. 1 Green, 245 ft. from S line, 450 ft. from E line of Sur. No. 233 ..... T.D. 2,542 ft.; standing.
Phillips Rosenberg's No. 1 Laurel, 291 ft. from E and N lines of Blk. 10, Sur. 371 ..... T.D. 3,100 ft.; no report.
Phillips Rosenberg's No. 2 Laurel, 150 ft. from N and W lines of Blk. 8, Sur. 371 ..... T.D. 2,244 ft.; comp. 400 bbls.
Thompkins et al's No. 1 Ortiz, 200 ft. from E line, 2,000 ft. from N line of Sur. No. 1,808 ..... T.D. 850 ft.; drlg.

WILLIAMSON COUNTY

McLean et al's No. 1 R. C. Miller, 300 ft. to S line, 100 ft. to W line of tr. in B. Manlove Sur. ..... T.D. 400 ft.; S.D.
McNeill & Matthews' No. 1 Bachmayer, 300 ft. from E line, 150 ft. from S line of C. C. Browning Sur. ... T.D. 1,700 ft.; drlg.
O. B. Peterman's No. 1 Guentzel, 300 ft. from SE line, 367 ft. from SW line of tract in H. Cooks Sur. ..... T.D. 2,132 ft.; drlg.

WILSON COUNTY

A. M. Blume's No. 1-A Nicholson, 105 ft. N, 27 deg. E of No. 1 Johnson ..... Location.
Sun Oil Co.'s No. 1 Tudyk, 650 ft. from W line, 500 ft. from S line of 157-ac. tract in John Turner Sur. .... T.D. 2,362 ft.; drlg

ZAPATA COUNTY

Ballard & Mercer's No. 1 Flores, 500 ft. from NE line, 550 ft. from SE line of Blk. 37, Porcion 37 ..... T.D. 2,505 ft.; drlg. lime.
Joe Cullinan's No. 1 E. Gutierrez, 1,992 ft. from NE line, 2,303 ft. from SE line of Charco de la India grant ..... T.D. 1,149 ft.; testing.
Donohoe et al's No. 1-A Garcia, 150 ft. from NE and SE lines of Blk. 7 of Subd. of 700 ac. of Share A, Charco Redondo grant ..... Set 1 joint of surface casing.
Hunt & Polk's No. 1 H. Ramirez, 7,075 ft. N of S cor. and 2,918 ft. from W line of Share A of Villa grant.. T.D. 820 ft.; drlg.
T. J. Murray's No. 1 Haynes, 2,915 ft. from NE line, 8,619 ft. from NW line of Comitas grant ..... T.D. 1,200 ft.; drlg.
F. J. Oesenbeck's No. 1 Adelfonso Ramerig, 600 ft. W of Zapata-Roma highway, 150 ft. from SE line of Porcion 18 ..... Location.
F. J. Searight's No. 1 F. Munoz, 660 ft. from N line and on line between Blocks 31 and 32 of Porcion 18 ..... Derrick.

Southwest Texas Proven Areas

Week Ending June 25

YOST FIELD—BASTROP COUNTY

Campbell & Tong's No. 8 Yost, 300 ft. SE of No. 7 Yost, A. Garcia Sur. ..... T.D. 1,535 ft.; drlg.

NORMANNA POOL—BEE COUNTY

Gulf Coast Oil Co.'s No. 5 Hicks, 600 ft. E of Nichols Oil Co.'s No. 2 Hicks ..... Moving in.
The Texas Co.'s No. 1 Scott, E of Normanna Field, 500 ft. N and W lines of lease in Jose Maria Uranga grant ..... T.D. 4,543 ft.; drlg.

PETTUS POOL—BEE COUNTY

The Texas Co.'s No. 5 Gremmell, 450 ft. N of No. 1 Gremmel in (south) John Pace Sur. ..... T.D. 3,906 ft.; drilled plugs.

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 2 J. H. Gembler, 130 ft. from N and E lines of tr. in A. Manachaca Sur. 51.. T.D. 1,216 ft.; drlg.
E. M. Carl's No. 1 F. Gembler, 160 ft. from N line, 750 ft. from E line of tract in J. Montes Sur. ..... T.D. 482 ft.; resumed drlg.
F. H. Eckert & Son's No. 1 Louis Brehm, W offset to No. 3 John J. Brehm ..... Location.

GAS RIDGE—BEXAR COUNTY

American Gas Co.'s No. 5 W. H. Kennon, 1,750 ft. from S line, 2,000 ft. from E line of 400-acre tract in Maria F. Rodriges Sur. ..... T.D. 2,223 ft.; fishing.

DUNLAP POOL—CALDWELL COUNTY

Bob Rose's No. 1-B Walker, 320 ft. from NW line, 150 ft. from NE line of Walker lease, Solomon Seal Sur.. T.D. 1,760 ft.; set csg.
Cole et al's No. 1 Pierce, 400 ft. from NE line, 445 ft. from NW line of Pierce 100-ac. tract in Solomon Seal Sur. ..... Derrick on ground.
Smilock Oil Co.'s No. 1 Dunlap, offsetting Bob Rose's No. 1 Pierce, in Solomon Seal Sur ..... Spudded in.
Trinity Drillers, Inc.'s No. 1 Dunlap, N offset to Bob Rose's No. 1 Pierce in Solomon Seal Sur. ..... Rigging up.

WEBSTER POOL—CALDWELL COUNTY

C. J. Webster Oil & Gas Co.'s No. 1 C. F. Robertson, 700 ft. from E line, 200 ft. from N line of 100-ac. tract, John A. Neill Sur. ..... Derrick.
C. J. Webster Oil & Gas Co.'s No. 1-A McCrory, 75 ft. NW of No. 1 McCrory in John A. Neill Sur. ..... Skidding rig.

COLE POOL—DUVAL COUNTY

Cole Pet. Co.'s No. 75 Benavides, 365 ft. from NE line, 150 ft. from NW line, Blk. 8, Sec. 18, Mariana Arispe grant ..... T.D. 6,357 ft.; coring.

GOVERNMENT WELLS—DUVAL COUNTY

A. R. Anderson's No. 1 E. Riley, 150 ft. from N line, 250 ft from S line of SW SW of Sur. No. 44 ..... Rigging up.
R. F. Byrd's No. 1 R. T. Wright, 150 ft. from N and W lines of Sur. 101 ..... Drlg. water well.
H. H. Coffield's No. 1 H. Wendt, 150 ft. from S and E lines of NE of Sur. No. 43 ..... T.D. 2,290 ft.; tested gas, to set csg.
Duval Oil Corp.'s No. 11 Bishop Cattle Co., Sur. 135 .... T.D. 2,335 ft.; comp. 10,000,000 ft. gas.
Humble Oil & Refining Co.'s No. 4 White, 2,310 ft. from S line, 1,320 ft. from W line of Sur. 58 ..... Location.
Humble Oil & Ref. Co.'s No. 5 Paul White, 1,980 ft. from W line, 990 ft. from S line of Sur. 58 ..... T.D. 2,300 ft.; set csg.
Magnolia Pet. Co.'s No. 1 G. Wendt, 150 ft. from S and E lines of NW Sur. 44 ..... T.D. 2,322 ft.; gauged 20 bbls. an hour.
Magnolia Petroleum Co.'s No. 1 J. T. Johnson, 150 ft. from N and W lines of SW of NE of Sur. 44..... Location.
Petroleum Finance Corp.'s No. 1 C. W. Hahl, 150 ft. from N and W lines of SW Sur. No. 46 ..... Rigging up
Leon Rus' No. 1 Hahl, 150 ft. from N and W lines of N 80 acres of SW of Sur. 46 ..... Rigging up.
Southwest Drilling Co.'s No. 1 R. Wendt, 150 ft. from S and E lines of Sur. No. 43 ..... T.D. 2,297 ft.; comp. gas well.
Windsor Oil Co.'s No. 1 L. L. Cummings, 450 ft. from S line, 150 ft. from W line of E half of NW of Sur. 44 ..... Location.

SARNOSA FIELD—DUVAL COUNTY

John F. Camp's No. 2 Weil, 1,200 ft. N, 18 deg. W of No. 1 Weil in Sur. No. 570 ..... Rigging up.
Hynes & Nessly's No. 1 Weil, 2,860 ft. from NE line, 200 ft. from NW line of Sur. 130 ..... Location.
E. R. Thomas' No. 1 Duval County Ranch Co., 150 ft. from NW and NE lines of E of S of Sur. 576 ..... Location.

SLICK POOL—GOLIAD COUNTY

T. B. Slick estate's No. 2 Allen, 1,650 ft. from NE line, 330 ft. from NW line of tr. in Obid Marshall Sur. T.D. 4,211 ft.; drilled deeper

DARST CREEK—GUADALUPE COUNTY

Humble Oil & Ref. Co.'s No. 5-C Sue Denman, 525 ft. from E line, 600 ft. N of No. 4-C, Wm. Arrington Sur. ..... T.D. 2,515 ft.; swabbing.
Humble Oil & Refining Co.'s No. 6-C Sue Denman, 938 ft. NE of No. 5-C Sue Denman and 400 ft. W offset to Sun Oil Co.'s No. 2 Dowdy in Jacob C. Darst Sur... Spudded in.
Sun Oil Co.'s No. 2 Dowdy, 500 ft. from N line of tract 700 ft. from W line of tract and survey in Jacob C Darst Sur. ..... T.D. 2,360 ft.; drlg.

LOBO FIELD—LIVE OAK COUNTY

John F. Camp et al's No. 1 Reagan, 3,100 ft. from E line, 21,200 ft. from N line of L. F. Reagan tract ... Location.

JACOB POOL McMULLEN COUNTY

Jacob, Buzzini & Pickett's No. 3-A Jacob, 740 ft. N, 75 deg. W of No. 2-A Jacob ..... T.D. 960 ft.; comp. 70 bbls
Jacob, Buzzini & Pickett's No. 1-B Jacob, Sec. 15 G.H.&H. Ry. Sur. ..... Set surface casing.
Jacob, Buzzini & Pickett's No. 1-C Jacob, Sec. 47, J. Pointevant Sur. ..... Location.
Longhorn Oil Co. and American Gas Co.'s No. 1 Lark, 2,790 ft. from N line, 1,150 ft. from W line of Lark tract, E. W. B. Scrugham Sur. ..... Moving in.

ADAMS FIELD—MEDINA COUNTY

Yantis Oil Co.'s No. 1 Adams, 420 ft. from S line, 2,000 ft. from W line of F. Mumme Sur. ..... Location.

KING FIELD—NUECES COUNTY

John F. Camp and Stanolind Oil & Gas Co.'s No. 2 King, 660 ft. from S and E lines of Sec. 23 of King Subd... T.D. 3,925 ft.; tested 309 bbls. on ¾-in. choke; setting csg

SAXET FIELD—NUECES COUNTY

Gulf Coast Oil Co.'s No. 1 Perkins and LeGasse, 330 ft. from N and E lines of 245-ac. tr., Sec. 26, Shepard Subd. ..... T.D. 4,566 ft.; wild gasser.
Gulf Coast Oil Co.'s No. 2 Bessie Elder, offset to No. 1 Perkins & Gasse, a wild gasser ..... T.D. 2,740 ft.; in sand; setting csg
Gulf Coast Oil Co.'s No. 2 Perkins & Gasse, 650 ft. from N line, 990 ft. from E line of Sec. 26 of Shepherd farm lots ..... Location.
V. B. Hillegeist's No. 1 McGregor, 150 ft. from W line, 330 ft from S line of Sec. 311 ..... T.D. 4,875 ft.; setting csg
McCarthy-Rogers-Nix et al's No. 1 Isencee, 151 ft. from W line, 172 ft. from N line of Blk. 12 of Shepherd farm lots ..... Location.
Rutherford Drlg. Co.'s No. 1 Hunter, 150 ft. from S and W lines of 10-ac. tr. ..... T.D. 4,807 ft.; plugged back to 4,100 ft.; comp. 200 bbls. oil.
Saxet Oil Co.'s No. 5 Weil, 3,041 ft. to N line, 333 ft. to W line ..... T.D. 2,500 ft.; dropped.
Saxet Oil Co.'s No. 1 Walton, 200 ft. from S line, 629 ft. from W line of 256-acre tract ..... Location.

ARANSAS POOL—SAN PATRICIO COUNTY

Atlantic Oil Prod. Co.'s No. 4 Welder, 1,900 ft. S, 30 deg. E of No. 3 Welder ..... T.D. 3,600 ft.; coring for sand.

WHITE POINT—SAN PATRICIO COUNTY

United Prod. Co.'s No. 3 Cage ..... T.D. 4,925 ft.; comp. gasser.

LOS OLMOS POOL—STARR COUNTY

Coastal Oil & Gas Co.'s No. 1 Kelsey-Bass, 697 ft. from W line, 873 ft. from N line of NW NW Sec. 5, Subd. of Porciones 75, 76 and 77 ..... T.D. 250 ft.; standing.
Kirk Cornell's No. 2 Kelsey-Bass, 450 ft. from N and W lines of Sec. 8, Porcions 75, 76, 77 ..... Location.
H. H. Davis' No. 6 Kelsey Bass, 20 ft. from E line, 600 ft. from N line of SW NW Section 6, Subd. of Porcions 75, 76, 77 ..... Spudded in.
Day & Co.'s No. 1 Kelsey Bass, 150 ft. from S line, 400 ft. from W line of W 20 acres of NE NW of Sec. 6, Subd. of Porcions 75, 76, 77 ..... T.D. 555 ft.; drlg.
Felder, Mitchell & Barnsley's No. 1 Kelsey-Bass, in Sur. 8, Subd. of Porcions 75, 76 and 77 ..... T.D. 320 ft.; abnd.
Griffin et al's No. 1 Bass, 150 ft. from N and W lines of NW NW Sur. 11, Subd. Porcions 75, 76, 77 ..... T.D. 925 ft.; drilling.
Hooks & Weaver's No. 7 Kelsey-Bass, 150 ft. from S line, 600 ft. from E line of E 30 acres of NE SW of Sec. 6, Subd. of Porciones 75, 76, 77, Jurisdiction Camargo ..... T.D. 445 ft.; drlg.
M. A. Landrum's No. 2 Kelsey-Bass, 510 ft. from S line, 150 ft. from E line of Sur. 6, Porcions 75, 76 and 77 ..... Location.
M. A. Landrum's No. 1 A. K. Bass, Sec. 6, 150 ft. to S and E lines of lease ..... Location.
Los Olmos Oil & Gas Co.'s No. 14 Kelsey Bass, 500 ft. from W line, 150 ft. from S line of NW of SE of Sur. 7 of Porcions 75, 76, 77, Camargo ..... T.D. 465 ft.; comp. 40 bbls.
Los Olmos Oil & Gas Co.'s No. 15 Kelsey Bass, 585 ft. from W line, 500 ft. from N line of SE of SW of Sec. 6, of Porcions 75, 76, 77, Camargo ..... T.D. 445 ft.; comp. 15 bbls.
Los Olmos Oil & Gas Co.'s No. 16 Kelsey Bass, 300 ft. from N line, 450 ft. from E line of NE NW of Sec. 7, of Subd. of Porciones 75, 76, 77, Jurisdiction Camargo ..... Location.
Los Olmos Oil & Gas Co.'s No. 17 Kelsey-Bass, 150 ft. from S and W lines, NW SE of Sec. 7, Subd. of Porciones 75, 76, 77, Jurisdiction Camargo ..... T.D. 400 ft.; drlg.
Los Olmos Oil & Gas Co.'s No. 18 Kelsey-Bass, 300 ft. from N and W lines of SE SW of Sec. 6, Subd. of Porciones 75, 76, 77, Jurisdiction Camargo ..... T.D. 420 ft.; drlg.
Tom C. Patton's No. 1 Kelsey-Bass, 150 ft. to W line, 150 ft. to S line of 20-ac. tract in NW NE of Subd. 8 of Porcions 75, 76 and 77 ..... T.D. 1,050 ft.; standing.
Quien Sabe Oil Co.'s No. 1 Kelsey Bass, 300 ft. from N line, 750 ft. from W line of NE SW Section 8, Porciones 75, 76, 77 ..... Location.
Rio O. & G. Co.'s No. 2 Kelsey-Bass, No. 6 Subd., Porcions 75, 76 and 77 ..... T.D. 569 ft.; standing.
San Marcos Development Co.'s No. 10 Ivy, 100 ft. from E line, 1,200 ft. from N line of Share 8 of Subd. of W two-thirds of Porcion 75, Camargo ..... T.D. 300 ft.; drlg.
Sinclair & Rutherford's No. 1 Kelsey Bass, 150 ft. from S and W lines of SE NW Sec. 6, Subd. of Porcions 75, 76, 77 ..... T.D. 420 ft.; drlg.
Snyder et al's No. 1 Powe, 600 ft. from E line, 300 ft. from S line of Share S, Subd. of N two-thirds of Porcion 75, Camargo ..... T.D. 250 ft.; drlg.

RIO GRANDE CITY POOL—STARR COUNTY

Coastal Oil & Gas Co.'s No. 1 Olivarez, 150 ft. from NE and SE lines of easternmost corner of Share 35, Porcion 80, Camargo ..... Derrick.
Gulf Coast Oil Co.'s No. 1 Frank Doyno, 150 ft. N of C of S line of Blk. 4, Share 77-A, Por. 81, Camargo ..... T.D. 1,449 ft.; setting csg.
T. J. Heard's No. 1 Block, 150 ft. from S and E lines of Lot 4, Tract 28-A of Por. 80, Jurisdiction Camargo ..... T.D. 1,580 ft.; drlg.
R. A. Hoffman's No. 1 Goodrich, 150 ft. from N and W lines of Blk. 6, Tract 5, Porcion No. 81 ..... Abnd. location.
King Pin Oil Co.'s No. 1 T. C. Lewis, 207 ft. from E line, 111 ft. from S line of Share 22, Porcion 80, Jurisdiction of Camargo ..... Derrick.
R. H. Pursley's No. 1 San Juan Plaza, cen. of Blk. 96, Rio Grande City ..... Abnd. location.
Tarver & Nance's No. 1 Seabury et al, 400 ft. from W line, 150 ft. from N line of Tract 21, in Porcion 79, Camargo ..... T.D. 1,300 ft.; drlg.
Traylor-Munday-Flowers' No. 1 Frank Doyno, 150 ft. from S and W lines of Blk. 7, Share 76-A, Porcions 80 and 81 ..... Location.

AVIATOR POOL—WEBB COUNTY

Frank Clark's No. 1 Puig Bros., 750 ft. from E line, 150 ft. from S line of Straight-8 160-acre tract, Albercas grant ..... T.D. 1,200 ft.; drlg.

WEST COLE POOL—WEBB COUNTY

French Oil Corp.'s No. 1 Benavides, 1,980 ft. from S line, 1,470 ft. from E line of Sur. 663 ..... T.D. 2,705 ft.; abnd.

CHAPMAN POOL—WILLIAMSON COUNTY

Westbrook Oil Co.'s No. 8-B Lawrence, 340 ft. NE of No. 7-B, and 150 ft. from SE line of 27-ac. tr. in S. Miller Sur. ..... T.D. 1,170 ft.; drlg.
R. A. Westbrook's No. 9 Simmons, 550 ft. along SE line of J. J. Sides' 10-ac. tr. from SW cor., thence 260 ft. SW at right angles and between Nos. 7 and 8 ..... T.D. 1,100 ft.; drlg.
Westbrook Oil Co.'s No. 9-B Lawrence, 340 ft. NE of No. 8-B and 150 ft. from SE line of 27-ac. tr. in S. Miller Sur. ..... Location.

ESCOBAS POOL—ZAPATA COUNTY

Allied Oil & Gas Co.'s No. 28 Gutierrez, 480 ft. from NE line, 1,027 ft. from SE line of Share 4, Comitas grant ..... T.D. 1,100 ft.; drlg.
Allied Oil & Gas Co.'s No. 27 Gutierrez, 463 ft. from NE line, 1,375 ft. from SE line of Share 4, Comitas grant. T.D. 1,474 ft.; comp. 75 bbls.
Allied Oil & Gas Co.'s No. 27 Gutierrez, 463 ft. from NE line, 1,375 ft. from SE line of Share 4, Comitas grant ..... T.D. 410 ft.; drlg.
F. M. Blair & Son's No. 1 Montemayor, 450 ft. to N, 150 ft. to E line of Blk. No. 1, Sur. 63 ..... T.D. 1,462 ft.; abnd.
H. H. Coffield's No. 2 Santiago Bustamente, 150 ft. from SE and NE lines of Coffield 80-ac. lease, Share 34, Comitas grant ..... T.D. 1,410 ft.; coring.
H. H. Coffield's No. 3 Santiago Bustamente, 450 ft. from SE line, 150 ft. from NE line of Coffield 80-ac., Share 34, Comitas grant ..... Location.
McGinley Oil Corp., No. 1 G. T. Montemayor, 150 ft. from N and W lines of Blk. 6, Sur. 64 ..... Location.
O. W. Killam's No. 9 Medina, 1,480 ft. from NE line, 325 ft. from SE line of Share 34, Comitas grant ..... T.D. 1,443 ft.; comp. 100 bbls.
O. W. Killam's No. 10 Medina, 158 ft. from SE line, 440 ft. from SW line of Share 34, Comitas grant ..... T.D. 1,310 ft.; drlg.
Shankle, Newton Oil & Gas Co.'s No. 17 F. Cuellar, 510 ft. from SE line, 675 ft. from SW line of Blk. 14, Sur. 65 ..... T.D. 500 ft.; drlg.
Shankle-Newton's No. 17 F. Cuellar, 510 ft. from SE line, 675 ft. from SW line of Blk. 14, Sur. No. 65 .... Location.
S.R.C. Oil Co.'s No. 11-D Montemayor, Blk. 9, Sur. 64 ... T.D. 1,475 ft.; comp. 175 bbls.
S.R.C. Oil Co.'s No. 6-E Trevino, 600 ft. from SW line, 450 ft. from NW line of Block 12, Sur. 65 ..... T.D. 1,200 ft.; drlg.
S. A. Thompson's No. 1 Garza Est., 450 ft. from SE line, 150 ft. from NE line of Blk. 20, Douglas Subd., Comitas grant ..... T.D. 910 ft.; drlg.
The Texas Company's No. 9 Measles, 500 ft. from SE line, 125 ft. from SW line of Cerrito Blanco grant .. T.D. 215 ft.; drlg.

CHARCO REDONDO POOL—ZAPATA COUNTY

Bob & Richey's No. 29 Martinez, 810 ft. from SW line, 340 ft. from SE line of Blk. 24, W. R. Duke Subd., Charco Redondo grant ..... Location.
L. G. Smith's No. 1 J. M. Martinez, 250 ft. from NE and SE lines of Blk. 18, Share B, Duke's Subd. of Charco Redondo grant ..... Location.
Winsor Oil Co.'s No. 1 Martinez, in NE of Blk. 15, of W. R. Duke Subd., Charco Redondo grant ..... Spudded in.

MARTINEZ FIELD—ZAPATA COUNTY

Newton Drilling Co.'s No. 2 Garza, 325 ft. from N line, 1,000 ft. from W line of Blk. 4, Sur. 161 ..... Rigging up.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 49)

Lawrence Decker, tr.'s No. 1 Madden, 1,650 ft. S and W, NE cor., Sec. 21-14-10 ..... Rigging up.
La. Oil Dev. Co.'s No. 2 La. Delta Pecan Co., 2,950 ft. S, 300 ft. E, NW cor., Sec. 27-12-11 ..... Spudded and S.D. 50 ft.

RICHLAND PARISH

National Gas Co.'s No. 1 Singletary, 1,980 ft. N, 660 ft. W, SE cor., Sec. 20-18n-7e ..... S.D. 2,515 ft.

SABINE PARISH

Adams & Roberson's No. 1 Peterson, 406 ft. N, 200 ft. W, SE cor. NE NE, Sec. 35-8-13 ..... Rigging up.
J. H. Askew's No. 1 Sabine Lbr. Co., NE NE, Sec. 9-7-13. Drlg. 2,410 ft.
R. W. Boulding's No. 1 Williams, Sec. 17-7-10, 200 ft. S and E, NW cor. SW NE ..... S.D. for wtr. 1,400 ft.
Broderick & Calvert's No. 1 Costello, Sec. 2-7-14, 375 ft. S, 150 ft. W, NE cor. SE NW ..... Tested dry 2,415 ft; S.D; W.O.
R. E. Brooke's No. 1 A. Gray, 330 ft. N and W, SE cor. SW NE, Sec. 35-8-13 ..... Location.
F. M. Burke's No. 1 Gray, 454 ft. N, 265 ft. W, SE cor. SW SW, Sec. 3-7-13 ..... Rigging up.
Bob Chew's No. 1 O. Gray, 330 ft. N and E, SW cor. SW NW, Sec. 35-8-13 ..... Location.
Cliff Oil Co.'s No. 1-A Martinez School, 720 ft. N, 105 ft. W, SE cor. NE SE, Sec. 4-7-13 ..... Set 10-in. 100 ft.
W. M. Coates' No. 1 Gray, 330 ft. N and W, SE cor. SW, Sec. 3-7-13 ..... Location.
W. M. Coates' No. 2 Gray, 330 ft. S and W, NE cor. SE SW, Sec. 3-7-13 ..... Location.
Coates Pet. Co.'s No. 2 Stille, 330 ft. N and E, SW cor. SE SW, Sec. 35-8-11 ..... Set 6-in. 2,030 ft.
Coates Pet. Co.'s No. 3 Stille, 330 ft. N and E, SW cor., Sec. 35-8-13 ..... Location.
The Coming Oil Co.'s No. 1 Cobb, 330 ft. N and E, SW cor., Sec. 14-7-11 ..... Derrick.
Craig et al's No. 1 Travis, Sec. 13-7-11, 200 ft. S and E, NW cor. SE NW ..... 1,500 ft. oil in hole 2,580 ft.
Crescent Drlg. Co.'s No. 1 Williams, 370 ft. E, 330 ft. S, NW cor. N½ SW, Sec. 21-7-12 ..... Location.
Crescent Drlg. Co.'s No. 2 Williams, 330 ft. S and W, NE cor. SE NW, Sec. 21-7-12 ..... Location.
Mark Curtis et al's No. 1 Sabine Lbr. Co., 330 ft. N and W, SE cor. NE SE, Sec. 35-8-13 ..... Derrick.
R. E. Davidson's No. 1 Davis, 600 ft. S, 125 ft. E, NW cor., Sec. 28-7-11 ..... Derrick.
William DeSota's No. 1 Mooney, 350 ft. S, 395 ft. E, NW cor., Sec. 35-8-13 ..... Derrick.
B. A. Ferrell's No. 1 Haley, Sec. 6-7-12, 300 ft. S and E, NW cor. NW SW ..... Drlg. 2,084 ft.
Harry Flinchbaugh's No. 1 Sepulbedo, 250 ft. N and E, SW cor. SE NE, Sec. 4-7-13 ..... Set 10-in. 100 ft.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 200 ft. W, NE cor. NW NW, Sec. 10-8-13 ..... Coring lime 5,920 ft.
R. L. Gay, tr.'s No. 11 Bowman-Hicks, 330 ft. N and W, SE cor. NE NE, Sec. 14-7-14 ..... Drlg. 2,505 ft.
J. I. Hall's No. 1 Williams, SE NW, Sec. 3-7-10 ..... T.A. 2,831 ft.
Vick Hammond's No. 1 Ezernack, SE cor. NW SW, Sec. 3-7-13 ..... Location.
W. N. Hankins' No. 1 Tilley, 200 ft. E, 30 ft. S, NW cor. SE SE, Sec. 30-8-12 ..... Derrick.
Howard et al's No. 1 Williams, 300 ft. N and E, SW cor. SE NW, Sec. 13-7-11 ..... Arranging to set 6-in. 2,433 ft.
J. B. Huges' No. 1 Stille, 283 ft. N, 383 ft. W, SE cor. SE SW, Sec. 36-8-11 ..... Rigged up; S.D. for wtr.
Ab Jones' No. 1 Garcia, 200 ft. S and W, NE cor. NW SE, Sec. 4-7-13 ..... Rigging up.
G. E. Jordan's No. 1 Dew, 330 ft. N, 340 ft. E, SW cor. SW SE, Sec. 34-8-11 ..... Location.
J. J. Keen, tr.'s No. 1 Belton (no check), Sec. 31-9-13. Plugged to test 1,743 ft.
A. D. King, tr.'s No. 1 Davis, 170 ft. N, 410 ft. E, SW cor. NW NE, Sec. 29-7-11 ..... Location.
A. D. King, tr.'s No. 1 Germain, Sec. 7-7-10, 330 ft. E, 518 ft. N, SW cor. NE NE ..... Set 6-in. 2,540 ft.
A. D. King, tr.'s No. 1 T. L. Andries, 200 ft. S, 300 ft. E, NW cor. SE SE, Sec. 15-7-11 ..... Derrick.
A. D. King, tr.'s No. 1 J. J. Andries, 140 ft. S, 240 ft. W, NE cor. SE SW, Sec. 15-7-11 ..... Drlg. 2,490 ft.
W. F. Lacey's No. 3 McNeely, Sec. 14-7-11, 300 ft. S and E, NW cor. NE NE ..... Comp. pumping 150 bbls. 2,508 ft.
S. A. Lane et al's No. 1 DeKeyser, 23¾ ft. E, 330 ft. S, NW cor. NE, Sec. 23-7-11 ..... Fishing for D.S. 2,525 ft.
Geo. LeGrand's No. 1 McGough, Sec. 3-8-10 ..... S.D. 1,450 ft.
Hill Myers' No. 1 Garcia, 200 ft. N and W, SE cor. SW NW, Sec. 4-7-13 ..... S.D. for water 1,200 ft.
E. F. Neely's No. 1 Rains, 660 ft. N, 100 ft. W, SE cor., SW NW, Sec. 14-7-11 ..... W.O.S.R. 2,541 ft.
C. D. Neff, tr.'s No. 1 Snell, Sec. 9-7-11, 350 ft. N, 660 ft. W, SE cor. Sec. ..... W.O.S.R. 2,509 ft.
C. D. Neff, tr.'s No. 1 Peterson, 200 ft. N and E, SW cor. NW NW, Sec. 36-8-13 ..... Set 6-in. 2,046 ft.
Palmer & Smitherman's No. 1 La. Long Leaf Lbr. Co., Sec. 12-7-11, 330 ft. S and E, NW cor. NE SE ..... Location.
Palmer & Smitherman's No. 2 La. Long Leaf Lbr. Co., 330 ft. S and W, NE cor. SE, Sec. 12-7-11 ..... Location.
Roy Raines et al's No. 1 Beard, 720 ft. E, 700 ft. N, SW cor. SW SE, Sec. 8-8-10 ..... Derrick.
J. H. Reeves' No. 1 Sabine State Bank, NE SW, Sec. 28-8-11 ..... Set 10-in. 100 ft.
Otis A. Robinson's No. 1 S. S. Martinez, 355 ft. S, 330 ft. W, NE cor. SE NE, Sec. 4-7-13 ..... Derrick.
Bill Rowe's No. 1 Sepulbedo, 530 ft. N, 200 ft. E, SW cor. SE SE, Sec. 4-7-13 ..... Derrick pattern.
Service Drlg. & Royalties Co.'s No. 2-A Gardner, 330 ft. N, 300 ft. E, SW cor. NE NE, Sec. 12-7-11 ..... Coring 2,457 ft.
Skully & Beach's No. 2 Lafitte, 149 ft. S, 222 ft. E, NW cor., Sec. 13-7-11 ..... Set 10-in. 100 ft.
H. R. Smith et al's No. 1 La. Long Leaf Lbr. Co., Sec. 12-7-11, 330 ft. S and W, NE cor. NW SW ..... Location.
W. W. Smith et al's No. 1 Sepulbedo, 230 ft. N, 250 ft. W, SE cor., Sec. 4-7-13 ..... Rigging up.
Sneed & Sneed's No. 1 Pearce, 200 ft. N, 215 ft. E, SW cor. NE SW, Sec. 35-8-13 ..... Drlg. 1,775 ft.
Southland Drlg. Co.'s No. 1 Frost Lbr. Co., 330 ft. N and W, SE cor. NE NE, Sec. 13-9-11 ..... Drlg. 1,720 ft.
Southland Drlg. Co.'s No. 2 F. Martinez, 330 ft. N and W, SE cor. W½ SE, Sec. 34-8-13 ..... Set 6-in. 2,102 ft.
State Prod. Co., Inc.'s No. 1 Davis, Sec. 17-7-10, 150 ft. N and E, SW cor. SW NW ..... Drlg. 2,805 ft.
State Prod. Co., Inc.'s No. 1-B Davis, 200 ft. N and E, SW cor., Sec. 17-7-10 ..... Derrick.
Supreme Oil Co.'s No. 1 Pruitt, 330 ft. N and E, SW cor. SE SW, Sec. 30-8-11 ..... Rigging up.
B. E. Taylor's No. 1 Gay, 232 ft. S, 476 ft. E, NW cor. SE SW, Sec. 36-8-12 ..... Location.
B. E. Taylor's No. 1 Wooley, 330 ft. N and E, SW cor. SE SW, Sec. 36-8-12 ..... Location.
A. F. Tarver's No. 3 Cutrer, Sec. 12-7-11, 1,120 ft. E, 300 ft. N, SW cor. NW ..... W.O.S.R. 2,600 ft.

A. F. Tarver's No. 1 R. Stoker, 1,980 ft. S, 1,320 ft. W, NE cor., Sec. 34-8-10 ..... S.D. for wtr. 2,100 ft.
A. A. Trammell's No. 1 Sepulbeda, 330 ft. N and W, SE cor. NW NE, sc. 5-7-13 ..... Derrick.
Tuffree et al's No. 1 T. L. Andries, N½ NE SE, Sec. 15-7-11 ..... Rigging up.
C. H. Tuttle's No. 2 Byrd, 126 ft. S, 134 ft. E, NW cor., Sec. 7-7-10 ..... Set 6-in. 2,430 ft.
C. C. Walker's No. 1 Noble-Neely, 330 ft. S and E, NW cor. SW, Sec. 36-8-13 ..... Derrick.
Williams & Spiers' No. 1 Williams, Sec. 31-8-10, SE cor. SE SW ..... Drlg. 2,050 ft.
Wurtsbaugh & Torren's No. 1 Peterson, 330 ft. N and W, SE cor. SW NE, Sec. 26-8-13 ..... Location.

TENSAS PARISH

A. R. Willis et al's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor., Sec. 33-11-13 ..... S.D. 2,545 ft.

VERNON COUNTY

Llano Co-operative Colony's No. 1 fee, NW NE, Sec. 34-2n-9w ..... Set 10-in. 50 ft; drlg. 187 ft.

WINN PARISH

Tex Lloyd's No. 1 Milam, C NW SW, Sec. 28-13-3 ..... Location.

ARKANSAS

ASHLEY COUNTY

D. S. Brooks, Inc.'s No. 1 Crossett Lbr. Co., 330 ft. N and E, SW cor. SW SE, Sec. 31-15s-6w ..... S.W. and abd. 4,031 ft.

COLUMBIA COUNTY

Kendall Oil Co.'s No. 1 Fullenweider, Rhea & Kitchen, Sec. 13-17-22 ..... Abd. 814 ft.

CLAY COUNTY

S. C. Jeffus' No. 1 Underwood, 510 ft. N, 350 ft. W, C, NW SE, Sec. 4-20-3 ..... L.253 ft. (corrected).

CLEVELAND COUNTY

Crum & Stillwell's No. 1 E. R. Bell, Sec. 10-10s-12 ..... Rigged up and S.D.

CLEBURNE COUNTY
(Cable tools)

Donnelly-Craver et al's No. 1 Donophan Lbr. Co., SE cor. NW, Sec. 33-11-9 ..... Junked and abd. 3,740 ft.

DALLAS COUNTY

J. H. James, tr.'s No. 1 Fordyce Lbr. Co., 200 ft. S, 200 ft. E, NW cor. SE, Sec. 11-9-15 ..... S.D. 2,575 ft.

DREW COUNTY

Co-Operative Dev. Co.'s No. 1 Ogles, Sec. 35-15-5, 330 ft. S and E, NW cor. NE NW ..... S.D. 2,205 ft.

HOT SPRINGS COUNTY

Star Oil Co.'s No. 1 Cunningham, 285 ft. S, 285 ft. W, NE cor., Sec. 11-5-16 ..... S.D. 1,340 ft.

LINCOLN COUNTY

Lawrence Cook, tr.'s No. 1 McGhee Planting Co., 420 ft. S, 200 ft. W, NE cor. NE SW, Sec. 5-8-7 ..... S.D. 2,800 ft.

LITTLE RIVER COUNTY

Harrell et al's No. 1 Taffee, 32 ft. W, 630 ft. E, 330 ft. S, SW cor. W NW, Sec. 25-12s-32w ..... Derrick.
Roberts Oil Co.'s No. 1 H. J. Russell, 330 ft. E, 330 ft. S, NW cor., Sec. 25-13-19 ..... Location abd.

LOGAN COUNTY

J. H. Flowers' No. 1 J. H. White, Sec. 13-6-26 ..... Abd. 3,570 ft.

MILLER COUNTY

C. E. Litchfield's No. 1 Hervey, 625 ft. S, 350 ft. W, NE cor. NE NW, Sec. 3-15-26 ..... T.A. 2,885 ft.
Pittwater et al's No. 1 Beck, Sec. 33-15-26 ..... Set 6-in. 2,919 ft.
W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor., Sec. 11-20-27 ..... S.D; W.O. 2,600 ft.

OUACHITA COUNTY

Copenhaven et al's No. 2 Berg, C SE SE, Sec. 13-15-17 .. W.O.S.R. 2,208 ft.
McLean et al's No. 1 L. D. Neely, Sec. 23-15-16, 200 ft. N and W, SE cor. NE SW ..... S.D. 102 ft.
Chas. Steele et al's No. 1 Anderson, 155 ft. S, 150 ft. E, from center Section 36-12-18 ..... Rigging up.

PIKE COUNTY

E. R. Henderson's No. 1 Tilyou, 660 ft. W, 500 ft. S, NE cor. NE SE, Sec. 26-8-14 ..... Abd. 2,909 ft.
E. R. Henderson's No. 1 J. L. Lee, 400 ft. S, 350 ft. E, NW cor. SW SE, Sec. 31-8-24 ..... S.D.; W.O. 1,020 ft.
E. R. Henderson's No. 1 W. B. East, 200 ft. S, 150 ft. W, NE cor., Sec. 13-9-23 ..... Rigging up on new hole.

PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW, Sec. 3-4n-4w ..... Partly rigged up and S.D.

SCOTT COUNTY

Waldron O. & G. Co.'s No. 1 White, NE cor. SW NW, Sec. 17-3n-29 ..... S.D. 1,860 ft.

SEVIER COUNTY

Tristate Oil Co.'s No. 1 Grimble, Sec. 34-8-32, S½ SW .. S.D. 950 ft.

ST. FRANCIS COUNTY

Field & Jones' No. 1 F. M. White, Sec. 1-4n-2e, SW cor. NW ..... Coring 2,950 ft.

UNION COUNTY

Cox et al's No. 1 Goodwin, 360 ft. S, 130 ft. W, NE cor. SW SW, Sec. 3-16-16 ..... Derrick.
H. H. Helms' No. 1 C. H. Murphy, NE cor. NW NE, Sec. 31-16-14 ..... S.D. 2,875 ft.
Wilson & Chapman's No. 1 King, Sec. 3-18-13, 330 ft. N and E, SW cor. NE NE ..... Derrick.
Wilson & Chapman's No. 1-A D. Norman, 330 ft. S and E, NW cor. N½ NE SE, Sec. 3-18-13 ..... S.D. 1,678 ft.

WASHINGTON COUNTY
(Cable tools)

A. R., Charles and Ed Rogers' No. 1 Cunningham, 125 ft. S, 300 ft. W, NE cor. SW NE, Sec. 14-15-32 ..... Reaming 1,670 ft.
C. H. Willoughby's No. 1 Jones, Sec. 34-14-30 ..... S.D. 1,795 ft.

YELL COUNTY
(Cable tools)

Tegmeier & Lockett's No. 1 Falcon, Sec. 36-7-21 ..... Abd. 5,710 ft.

EAST TEXAS

BOWIE COUNTY

Logan & Elliott's No. 1 Smith, 9,600 ft. S, 2,500 ft. W, NE cor. Chas. Lewis Sur. ..... S.D. 4,505 ft.
Lanford et al's No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ..... S.D. 1,792 ft.

CASS COUNTY

Davis & Pigg's No. 1 Roy Bryan, SW cor. Roy Bryan 88-ac. tr., Albert H. Lattimer Sur. ..... S.D. 2,360 ft.
C. B. Murdock's No. 1 First National Bank, Evans Watson Sur. ..... S.D. 4,390 ft.
John C. Rogers' No. 1 I. E. Lanier, 573 ft. N, 870 ft. W, SE cor. Lanier 86 ac. in K. E. Welborn Sur. .... S.D. 2,280 ft.
John C. Rogers et al's No. 1 W. Q. Henderson, 3,100 ft. S, 3,100 ft. E, NW cor., Wm. Davis Sur. ..... S.D. 960 ft.

HARRISON COUNTY

Lloyd Oil Corp.'s No. 1 E. S. Timmons, 150 ft. from N line to 250 ft. from E line of 105-ac. tr., Findley Sur. ..... S.D. 4,195 ft.
M. E. Nash et al's No. 1 Henderson, G. L. Bledsoe Sur. .. S.D. 35 ft.
Ryan Cons. Pet. Corp.'s No. 1 J. M. Fuhr, 1,200 ft. N of NW cor. T. J. Copelin Sur., 1,675 ft. SW at right angles to NW SE line of O'Neal Sur. ..... Derrick.
Triangle Drlg. Co.'s No. 1 Platt, 1,125 ft. W, 1,995 ft. N, SE cor. F. C. Barker Sur. ..... Location.

MARION COUNTY

M. M. Howard's No. 1 Hussey, Chas. Lockhart Sur. ..... S.D. 1,914 ft.
Bannock Dev. Co.'s No. 1 Miller, 725 ft. N, 1,470 ft. E, SW cor. H. Fulgram Sur. (was Gist, Claunch & Dodson) ..... T.A. 3,996 ft.
Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S, most northerly N line, 2,555 ft. E most easterly W line, Alexander Albright Sur. ..... S.D. 2,330 ft.
Purcell et al's No. 1 Coker, M. Reed Sur. ..... S.D. 1,957 ft.

PANOLA COUNTY

Moses & Wallace's No. 1 Daniel, 660 ft. N and W lines, Mrs. Gerrell 100-ac. tr., SW cor. Isabel Hanks Sur.. S.D. for D.S. 740 ft.
J. L. Nelson et al's No. 1 J. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr. in James Hanks Sur. ..... S.D. 3,055 ft.

SHELBY COUNTY

K. H. Francis' No. 1 John Mims, Mary Smith Sur. ..... Rigged up on new hole.
General Minerals Co.'s No. 2-B Holt, Matthew Moore Sur.. S.D. 3,951 ft.
General Minerals Co.'s No. 2 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. D. S. Height Sur. ..... Fishing 2,740 ft.
Henry Moulding's No. 1 Frost Lbr. Co., NE cor. Frost Lbr. Co.'s 20-ac. tr., A. D. Fountain Sur. ..... Rigged up on new hole.
McRoby et al's No. 1 Windham, Wm. Leach Sur., on Windham 296-ac. tr. ..... S.D. 3,393 ft.
Ridgeway et al's No. 1 Polley, Dominguez Gonzales Sur., 3,150 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tr. ..... Set 8-in. 1,937 ft; T.D. 1,949 ft.
Sedberry et al's No. 1 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. Jane Stoddard Sur. ..... S.D.; W.O. 1,768 ft.
Western World's No. 1 Foster, Billingsby-Jeremiah Bowlin Sur. ..... S.D. 2,940 ft.
Wray & Dunbar's No. 1 C. A. Hayden, 600 ft. N and W SE cor. 152-ac. tr. in D. T. F. Yordt Sur. ..... Drlg. 1,995 ft.

Louisiana-Arkansas Proven Areas

NORTH LOUISIANA

CADDO PARISH—PINE ISLAND

Company, well, farm name, section and block— Remarks:
Simplex Oil Co.'s No. 1 Youree-Glassell, 500 ft. N and E, C, Sec. 13-20-15 ..... Comp. pumping 90 bbls. 2,272 ft.

OUACHITA PARISH

Carbon Con.'s No. 7 Guthrie, Sec. 50-20n-4e, 5,263 ft. N, 7,475 ft. W of cors. of Secs. 25, 26 and 49, in Sec. 50 ..... Location.
J. J. Potts, trustee's No. 2 Robertson-Reid, 521 ft. N, 325 ft. E, SW of Sec. 11-18-4e ..... Location.

SABINE PARISH—ZWOLLE

Baird Bros.' No. 1 S. Martinez, 123 ft. E, 476 ft. S, NW cor. NE SW, Sec. 2-7-13 ..... Bailing 2,415 ft.
W. M. Coates' No. 1 LaRoux, 330 ft. N and E, SW cor. SE, Sec. 36-8-13 ..... Set 6-in. 2,076 ft.
W. M. Coates' No. 1 Nulton, 224 ft. E, 330 ft. S, NW cor. SW NW, Sec. 1-7-13 ..... Tested dry 2,515 ft.; W.O.
Coates Pet. Co.'s No. 2 S. S. Martinez, 347 ft. S, 320 ft. E, NW cor. NE SE, Sec. 3-7-13 ..... Drlg. 1,950 ft.
Dengall O. & G. Co.'s No. 1-F Nulton, 330 ft. S and E, NW cor. SW NW, Sec. 2-7-13 ..... Derrick.
Dengall O. & G. Co.'s No. 1-G Nulton, 350 ft. N, 330 ft. W, SE cor. NE NE, Sec. 3-7-13 ..... W.O.S.R. 2,419 ft.
Dengall O. & G. Co.'s No. 2-G Nulton, 330 ft. N and E, SW cor. NE NE, Sec. 3-7-13 ..... Location.
J. E. Grandstaff's No. 1 Johnson, 8½ SW SW, Sec. 2-7-11. S.D. 2,020 ft.
Lionel Hawkins' No. 2 Newton, 796 ft. N, 336 ft. E, SW cor. NE SE, Sec. 1-7-11 ..... Derrick pattern abd.
H. M. Jones' No. 1 Raines, 300 ft. S, 150 ft. W, NE cor. NW NW, Sec. 14-7-11 ..... Derrick pattern.
W. F. Lacey's No. 1 Hughes, 330 ft. S and E, NW cor. E½, Sec. 10-7-11 ..... Location.
W. F. Lacey's No. 2 Hughes, 40 ft. N, 106 ft. W, SE cor. NW SW, Sec. 11-7-11 ..... Set 10-in. 42 ft.
Lanier et al's No. 2 Newton, 400 ft. N, 330 ft. W, SE cor. NW, Sec. 3-7-13 ..... Derrick.
Lion Oil Ref. Co.'s No. 1 LaRoux, 348 ft. N, 330 ft. E, SW cor. S½ NE SE, Sec. 3-7-13 ..... Set 10-in. 103 ft.
Loring Oil Co.'s No. 18 Bowman-Hicks, 1,280 ft. S, 275 ft. E, NW cor. SW NW, Sec. 15-7-13 ..... Washing 5,272 ft.
McCormick et al's No. 1 Pate et al, 330 ft. S and W, NE cor., Sec. 32-8-11 ..... Location abd.
H. D. McDonald's No. 1 T. L. Andrin, 180 ft. E, 150 ft. N, SW cor. NW SE, Sec. 15-7-11 ..... Location.
Frank Melat's No. 1 Davis, 175 ft. W, 225 ft. S, NE cor., Sec. 2-7-11 ..... Rigging up.
Ben Merritt, tr.'s No. 1 Nulton, 400 ft. S and W, NE cor. SW NE, Sec. 3-7-13 ..... Testing 2,352 ft.
C. D. Neff, tr.'s No. 1 Stoker, 212 ft. N and W, SE cor. NE SW, Sec. 10-7-11 ..... Derrick.
Pelican Natural Gas Co.'s No. 14 La. Long Leaf Lbr. Co., 330 ft. S and E, NW cor. NW NE, Sec. 8-7-11.... Drlg. 1,770 ft.
T. L. Phillips et al's No. 1 Haley, 330 ft. S and E, NW cor. NW SE, Sec. 6-7-12 ..... Derrick pattern.
F. G. Reid's No. 1-B McNeely, 400 ft. S, 110 ft. W, NE cor. NE NW, Sec. 14-7-11 ..... W.O.S.R. 2,508 ft.
F. G. Reid's No. 4-A McNeely, 200 ft. S and W, NE cor. NW NE, Sec. 14-7-11 ..... Derrick.
C. T. Ruffian's No. 1 Lilley, 300 ft. S and W, NE cor. NW, Sec. 8-7-11 ..... W.O.S.R. 2,356 ft.
Howard Russell's No. 1 Porter, 680 ft. N, 230 ft. W, SE cor., Sec. 7-7-11 ..... Set 10-in. 100 ft; S.D. for wtr. at 450 ft.
Sabine Prod. Co.'s No. 3 Pearce, Sec. 10-7-11, 330 ft. S and E, NW cor. SE NW ..... S.D.; W.O. 2,699 ft.
Self & Kissick's No. 2 Moran, C W½ SE NE, Sec. 1-7-11. Derrick.
Ben F. Smith's No. 1 fee, 330 ft. S, 400 ft. E, NW cor. Sec. 4-7-11 ..... Drlg. 2,063 ft.
W. S. Smith, trustee's No. 1 Hamilton, 330 ft. N and E, SW cor. NE NE, Sec. 32-8-11 ..... Derrick.
F. E. Stancil's No. 1 Pouder, 372 ft. S, 397 ft. E, NW cor. NE SE, Sec. 10-7-11 ..... Tested dry 2,530 ft; W.O.
F. E. Stancil's No. 2 Pouder, 805 ft. N, 333 ft. E, SW cor. SE SE, Sec. 10-7-11 ..... Location.
E. M. Thompson's No. 1 Travis, 350 ft. N and E, SW cor. SE SW, Sec. 12-7-11 ..... Set 6-in. 2,457 ft.
A. A. Trammell's No. 1 Hill, 330 ft. S and W, NE cor. SE SE, Sec. 32-8-11 ..... Derrick.

UNION PARISH

Interstate Nat. Gas Co.'s No. 2 Steele, 1,980 ft. W, 660 ft. N, SE cor., Sec. 26-20-3e ..... Comp. 4,500,000 ft. gas 2,131 ft.
Interstate Nat. Gas Co.'s No. 3 Steele, 660 ft. S and E, NW cor. NE, Sec. 26-20-3e ..... Set 6-in. 2,104 ft.
Southern Carbon Co.'s No. 60 fee, 36 ft. W, 482 ft. S, NE cor. NW, Sec. 20-20-4e ..... Location.

ARKANSAS

UNION COUNTY—URBANA

Marine Oil Co.'s No. 1 Winn est., 330 ft. S and E, NE cor. S½ NW, Sec. 11-18-13 ..... T.A. 3,586 ft.
Marine Oil Co.'s No. 2-E Thompson, 330 ft. N, 330 ft. E, SW cor. NE NE, Sec. 10-18-13 ..... Location.
Wilson & Chapman's No. 1-B Hadley, Sec. 3-18-13, 330 ft. S and W, NE cor. SE NW ..... T.A. 3,545 ft.
Wilson & Chapman's No. 2 Emily King, Sec. 3-18-13, 150 ft. S, 150 ft. E, NW cor. NE NE ..... S.D. 1,730 ft.

EAST TEXAS

PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucks, John Palmer Sur. ..... S.D. 3,376 ft.
United Prod. Corp.'s No. 17 Steele, 1,320 ft. N, 660 ft. W, SE cor. C. D. Steele lse., in B. C. Jordan Sur. .... Location.

MISSISSIPPI

HINDS COUNTY

James A. Baker et al's No. 1 Hudson, 380 ft. W, 700 ft. S, NE cor. NW NE, Sec. 11-5n-1e ..... Rigging up.
McGuire et al's No. 1 Spring Lake, Sec. 11-5n-1e, 350 ft. N, 450 ft. W, from center of Sec. ..... T.A. 2,487 ft.

RANKIN COUNTY

James Alexader, tr.'s No. 2 Fitzhugh, 550 ft. diagonally SE, 425 ft. S, NW cor. NW NE, Sec. 1-5n-1e .... Set 6-in. 2,360 ft.
Meredith-Smith et al's No. 3 Strawder, 400 ft. S, 750 ft. W, NE cor., Sec. 12-5n-1e.....Set 10-in. 105 ft; S.D; W.O.
Muse-Muse & Love's No. 1 Bradley, 800 ft. W, 400 ft. N, SE cor. SW, Sec. 11-5n-1e .....Gauging flow 2,451 ft.

Wildcat Operations in Mississippi

CLARKE COUNTY

Company, well, farm name, section and block—	Remarks:
F. X. Gowans et al's No. 1 Elfring, SE NE, Sec. 13-1n-14e.	S.D. 104 ft.

HINDS COUNTY

Atkins et al's No. 1 Crane Lawrence, Sec. 23-6n-1e, 300 ft. E, 132 ft. N, SW cor. NE SE.....Arranging to set 5½-in. 2,485 ft.
Miss.-Minn. Oil Co.'s No. 1 Edwards Land Co., Sec. 33-6n-4w, 1,200 ft. N and E from center of Sec. .....S.D. 3,100 ft.

JASPER COUNTY

Bay Springs Pet. Co.'s No. 1 Keyes, C NW NE, Sec. 2-12-9 .....Dry and abd 3,703 ft.

LAMAR COUNTY

Stauffer & Kouri's No. 1 Bond, SE NE, Sec. 18-2n-14w..Drlg. 1,510 ft.

LOWNDES COUNTY

Lowndes County Oil & Dev. Co.'s No. 1 Carr est., Sec. 34-17-16e, 1,320 ft. E, 330 ft. S, NW cor. Sec. .....Drlg. 1,606 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Rye, Sec. 22-15s-17w .....Drlg. 416 ft.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 300 ft. E, SW cor. SE, Sec. 25-6n-11e.....S.D. 840 ft.

NOXUBEE COUNTY

Thompson & Donohue's No. 1 Donohue, Sec. 25-16n-17e..S.D. 1,735 ft.

RANKIN COUNTY

James Alexander, tr.'s No. 1 Holmes, 445 ft. E, 375 ft. N, SW cor. NW, Sec. 31-6n-2e .....Rigging up.
Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e. Derrick.
Orr et al's No. 1 Hanna, Sec. 14-5n-1e, 500 ft. E, 250 ft. S, NW cor. SW.....Reaming to set 6-in. 2,369 ft.

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-8-9.....S.D. 700 ft.

WARREN COUNTY

Eagle Bend O. & G. Co.'s No. 1 Kiger, SW cor. SW SE, Sec. 9-18-2 ..... S.D. 2,607 ft.

Wildcat Operations in Alabama

CLARKE COUNTY

Company, well, farm name, section and block—	Remarks:
Tidal Oil Co. et al's No. 1 Hobson, Sec. 33-6n-2e.....	Arranging to deepen 3,524 ft.

LAMAR COUNTY
(Cable tools)

DeSoto O. & G. Corp.'s No. 1 Gardner, NW NW, Sec. 23-15s-16w .....Reaming to 1,600 ft. (corrected).

MOBILE COUNTY

Ohio Oil Co.'s No. 1 James Bethel, 330 ft. N and E, 3,300 ft. E of NW cor. SW SE, Sec. 34-3s-2w.....Rigging up.

WASHINGTON COUNTY

South Alabama O. & G. Co.'s No. 1 Wilson, Sec. 26-7n-1w. Rigging up.

Gulf Coast Fields and Wildcats

(Continued from Page 50)

Sun Oil Co.'s No. 3 Higgins, Wm. Hodges Sur., 50 ft. from E line of tr. and direct offset McAlbert Oil Co.'s No. 2-B Higgins .....Drlg. rock 1,388 ft.
The Texas Company's No. 6 Wilburn (D.D.), Henry Griffith League .....Drlg. shale and lime 4,172 ft.
Texas Gulf Producing Co.'s No. 7-A Barber, Henry Griffith League, 712 ft. from W line and 235 ft. from N line of tract .....T.D. 5,830 ft; sand 5,777-5,829 ft; comp. pumping 100 bbls. daily.
Texas Gulf Prod. Co.'s No. 10-B Kirby, Henry Griffith League, 450 ft. E of No. 9-B and 250 ft. S of N line .....Set 21 ft. of 7-in. (O.D.) screen 4,376 ft.; comp. flowing 1,375 bbls. P.L. oil, 265 lbs., ¾-in. choke.
Texas Gulf Prod. Co.'s No. 2 Cornelia Barber, Henry Griffith League, 514 ft. W, 41.5 ft. S of NE cor. of tr. .....Rock 1,336 ft; cmtd. 16-in. csg.
Texas Gulf Prod. Co.'s No. 10-H Kirby, Henry Griffith League, 30 ft. W of No. 2 Illrey .....Cmtd. 24-in. csg. 30 ft.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 23 Moore, Mark Smith Sur., 560 ft. N and 560 ft. W of No. 21.....Drlg. gumbo 555 ft.

RABBS RIDGE—FORT BEND COUNTY

Gulf Prod. Co. and Humble Oil & Ref. Co.'s No. 3 Booth-Meyers, John Rabb Sur., 1,500 ft. E of No. 2..Drlg. shale and lime 4,035 ft.
Gulf Prod. Co. and Humble O. & R. Co.'s No. 1-A Booth, Samuel Kennedy Sur., 445 ft. N of S line due N of No. 1 T. R. Booth.....Set 100 f. of 5-in. screen 5,156 ft. with 4,915 ft. of 2½-in. tubing; comp. flowing 57 bbls. per hr., 630 lbs., ¾-in. choke.
Gulf Prod. Co. and Humble O. & R. Co.'s No. 2-A T. I. Booth, Samuel Kennedy Sur., 445 ft. N of S line and 575 ft. E of No. 1-A .....Drlg. gumbo 1,665 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 2 Davis, Robt. Peebles Sur., 2,483 ft. E, 150 ft. S of NW cor. of 1,000-ac. tr. .....Drlg. surface formation 312 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 4-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. E, 300 ft. N of SW cor. of Tr. 3 .....Drlg. gumbo 1,297 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 5-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. W, 300 ft. N of SE cor. of Tr. 3 (469.3 ac.) .....Drlg. hard shale 4,019 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 3-B Lockwood & Sharp, J. Rabb Sur., 1,000 ft. from E line and 300 ft. from N line of Tr. 1 (938.75 ac.). Location.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 4 George, J. Rabb Sur., 3,000 ft. E, 333 ft. S of NW cor. of 300-ac. tr. .....Sandy shale 5,120 ft; cmtd. 7-in. csg. 5,100 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 1-B George, J. Rabb Sur., 1,950 ft. from W line, 350 ft. from N line of tr. .....Sandy shale 5,269 ft.; cmtd. 7-in. csg. 5,230 ft.
The Texas Co.'s No. 1 Wolters (M. H. Gubbels), Samuel Kennedy Sur., 742 ft. from W line, 100 ft. from S line of 190-ac. tract .....Drlg. shale and lime 4,180 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 28 Cade, N. Fitzsimmons Sur., 400 ft. S, 150 ft. E from No. 26.....Drlg. hard sand 5,820 ft.
Yount Lee Oil Co.'s No. 29 Cade, N. Fitzsimmons Sur., 300 ft. E of No. 27 and 340 ft. N of No. 16 .....Drlg. sand and lime 4,896 ft.
Yount Lee Oil Co.'s No. 2 Broussard & Orme, Martin Duman Sur., 300 ft. SE of No. 1 .....Drlg. sand and lime 2,450 ft.
Yount Lee Oil Co.'s No. 11 Smith, Martin Dunman Sur., 130 ft. E of No. 3 and 440 ft. N of No. 5 .....Drlg. shale 4,100 ft.
Yount Lee Oil Co.'s No. 2 Nellie League, Martin Dunman Sur., 230 ft. N of No. 1 and 300 ft. E .....Drlg. hard sand 3,895 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 140-A Cotton .....Spudded.

HUMBLE—HARRIS COUNTY

Cullen & West's No. 4 Burt, J. B. Stevenson Sur., 50 ft. NW of No. 3 in line with No. 2 .....Abd. in heaving shale 5,281 ft.
J. D. Clay's No. 1 Bender, Robert Dunman Sur., 200 ft. from W line and 100 ft. from S line of 100-acre tract .....Rigging up to pump 1,188 ft.
Sun Oil Co.'s No. 26 Bender (D.D.), W. B. Adams Sur...Drlg. shale 4,560 ft.
Sun Oil Co.'s No. 54 River, Robert Dunman Sur., 50 ft. from E line and 395 ft. from S line .....To work over.
Sun Oil Co.'s No. 56 River, Robert Dunman Sur., 150 ft. N of No. 55 .....Comp. flowing 160 bbls. 1,305 ft.
The Texas Co.'s No. 26 House, Mary Owens Sur., 100 ft. W of No. 20 .....Drlg. rock 2,450 ft.
E. M. Wilson's No. 10 W. & P.-Texas fee, 50 ft. E line, 40 ft. from N line of Blk. 23, J. B. Stevenson Sur...Drlg. rock 650 ft.

PIERCE JUNCTION—HARRIS COUNTY

Abercrombie & Harrison's No. 2 Ritter (D.D.), Jas. Hamilton Sur. No. 51 .....T.D. 5,437 ft; plugged to 4,545 ft.
Gulf Production Co.'s No. 35 Taylor, Hamilton Sur. No. 52, 50 ft. S of No. 1 .....Drlg. gumbo 850 ft.
Navarro Oil Co.'s No. 15 Dooley-Tex. Exp. (D.D.), Jas. Hamilton Sur. No. 51, 50 ft. from W line, 1,278 ft. from S line of tr. .....Rig up to pump 4,561 ft.
Rio Bravo Oil Co.'s No. 24-A Settegast, J. Kopman Sur. No. 44, 1,900 ft. S and 200 ft. W of NE cor. of "A" lease .....Cutting and pulling liner 4,532 ft.
Rio Bravo Oil Co.'s No. 25-A Settegast, J. Kopman Sur. No. 44 (location check to come) .....Derrick.
S. B. Ward's No. 1 Mowery, J. Hamilton Sur. No. 53, 300 ft. from W line, 60 ft. from N line of 24-ac. tr...Derrick.

MYKAWA—HARRIS COUNTY

Crown-Framer Oil Co.'s No. 2 Minnetex, 125 ft. from W line and 100 ft. from S line, Lot 251, Wm. J. Lovett Sur. .....Set 35 ft. of 6⅝-in. screen 4,845 ft.; comp. flowing 200 bbls. P.L. oil; ½-in. choke; 225 lbs. on csg. and 125 lbs. on tubing.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 5 Davis (D.D.), Kokernut Sur., 150 ft. from S line, 1,197 ft. from E line of tract .....Drlg. shale 4,330 ft.
Cranfill & Reynolds' No. 5 Esperson (W.O.), M. Duncan Sur., 100 ft. N line and 300 ft. E line .....Spudded.
Cranfill-Reynolds Co.'s No. 9 Moore's Bluff, M. Duncan Sur., 500 ft. S of N line of Moore's Bluff tract in line with No. 6 Davis and No. 6 Moore's Bluff .....Location.

HULL—LIBERTY COUNTY

Aberoil Co., Inc.'s No. 1 fee, Jesse DeVore Sur., 400 ft. from E line and 650 ft. from S line, NE cor. Location.
Eclipse Oil Co., No. 2 Barrow, Jesse Devore Sur., 55 ft. W, 35 ft. S of most easterly NE cor. 3.7-ac. tract....Drlg. brown shale 4,875 ft.
Hannah Oil Co.'s No. 1 Hannah, Jesse DeVore Sur., 100 ft. W of The Texas Co.'s No. 1 Hannah .....No report.
D. & L. Prod. Co. and Bashara Oil Co.'s No. 1 Pevito, Jesse Devore Sur., 34½ ft. from E line and 30 ft. from N line of 5-acre strip .....T.D. 4,553 ft.; csg. collapsed; pulled derrick in.
D. & L. Prod. Co.'s No. 3 Mecom & Layton, Jesse DeVore Sur., 80 ft. from S line, 60 ft. from W line of 3-ac. tr. .....Drlg. 250 ft.
Healey & Southerland's No. 1 Findley, Jesse DeVore Sur., 50 ft. from E line and 100 ft. from N line of 4-ac. tr. .....Cavity 824 ft; D.S. stuck.
Republic Prod. Co.'s No. 51-A Dolbear, Jesse DeVore Sur., 25 ft. N of No. 55 .....Drlg. hard sand 1,760 ft.
Republic Prod. Co.'s No. 146 Dolbear, Jesse DeVore Sur., midway between and in line with Nos. 18 and 86 ..Spudded.

MARKHAM—MATAGORDA COUNTY

Harvey Smith et al's No. 1 W. H. Gray (W.O.), Wm. Hadden Sur., 400 ft. from S line, 150 ft. from E line of Blk. 2 .....Set 15 ft. of 4½-in. screen 3,623 ft.; tested dry; to deepen.
Southern Drlg. & Prod. Co.'s No. 1 Hudson, Henry Parker Sur., 233 ft. from E line and 370 ft. from N line of Blk. 4 .....Drlg. anhydrite 3,395 ft; top of anhydrite 3,387 ft.
The Texas Company's No. 1 Texas Pipe Line Co., Wm. Hadden Sur., Blk. 5, 50 ft. S and 50 ft. W of NE cor. of tract .....Drlg. shale 3,519 ft.

WEST COLUMBIA—BRAZORIA COUNTY

Hogg et al's No. 1 Hogg, Martin Varner Sur., 1,250 ft. N and 125 ft. E of Sw cor. of Gulf, W. C. Hogg 200 ac. .....Drlg. 3,425 ft.

PORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 3 Stark, 350 ft. E. 100 ft. N of SW cor. of Marshall Beauchamp Sur. .....Drlg. sand and boulders 2,890 ft.

ORANGE—ORANGE COUNTY

Orange Pet. Co.'s No. 13 Chesson (W.O.) .....T.D. 3,163 ft; sidetracking 3,010 ft.
Sun Oil Co.'s No. 1 Bellis (D.D.) .....Drlg. 4,225 ft.

REFUGIO—REFUGIO COUNTY

E. M. Jones' No. 1-B Mitchell (D.D.), 250 ft. NW of SE line and 250 ft. SW of Mission River .....Sand showing oil 9,134 ft; cmtd. 5¾-in. csg. and 100 ft. screen (one string).
Larco Gas Co.'s No. 5 Strauch, Refugio Town tract, Lot 6, Blk. 2, 100 ft. W of No. 2 .....Set screen 5,557 ft.
United Prod. Corp.'s No. 4 W. J. Fox, 2,600 ft. NE along SE line from SE cor. of Wm. Hews and L. Brown Sur., thence 1,420 ft. NW at right angles ...T.D. 6,560 ft; plugged back.

CLAY CREEK—WASHINGTON COUNTY

Nicholson Oil Corp.'s No. 1 Bimage, C of E½ of J. F. Perry Sur., 200 ft. from W line and 1,300 ft. from S line of 242-ac. tract .....No report.
John Walker et al's No. 1 Henry Wendt, J. F. Perry Sur., 150 ft. from SW line and 405 ft. from SE line of tract .....S.D. 1,254 ft.

SOUTH LOUISIANA FIELDS

JENNINGS—ACADIA PARISH

Reliable Oil Co.'s No. 1 Haber, 50 ft. N and 50 ft. W of SE cor., Lot 4, Blk. 12, Sec. 46-9s-2w .....Sand and shale 1,927 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Magnolia Pet. Co.'s No. 2 Waite, 330 ft. out of NE cor. SE, Sec. 12-9s-7w .....Rig.

EDGERLY—CALCASIEU PARISH

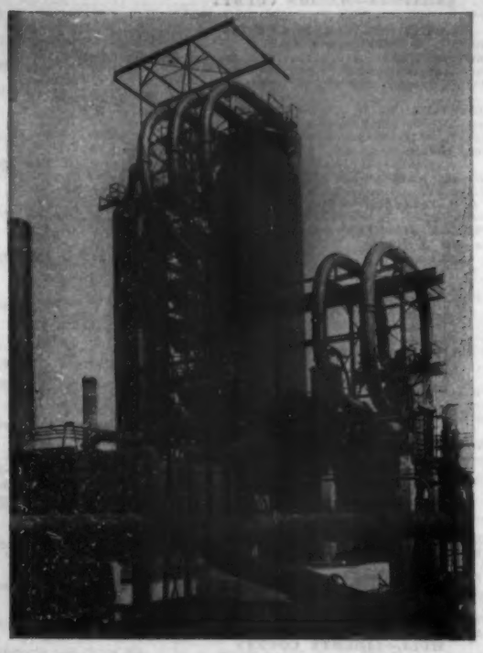
C. M. Crotty Oil Co.'s No. 7 Lillard (W.O.) .....T.D. 2,530 ft.; S.D.

LOCKPORT—CALCASIEU PARISH

Union Sulphur Co.'s No. 3 Martha Moss, 300 ft. W, 150 ft. S, NE cor. NW SE, Sec. 8-10s-9w.....Set one joint screen 4,813 ft.; tested S.W.; pulling screen to deepen.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 751 fee (D.D.), Sec. 29-9s-10w..Salt. 4,344-4,494 ft.; drlg. sidetracked hole; sandy shale 3,320 ft.
Union Sulphur Co.'s No. 769 fee, 295 ft. S, 918 ft. W of C of Sec. 29-9s-10w .....Salt. 6,053 ft.; sidetracking 4,600 ft.
Union Sulphur Co.'s No. 770 fee, 292 ft. S, 1,343 ft. W of center, Sec. 29-9s-10w .....Location.
Union Sulphur Co.'s No. 771 fee, 431 ft. S, 340 ft. W of center, Sec. 29-9s-10w .....Sand 5,152-61 ft.; tested S.W.; pulling screen.



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Union Sulphur Co.'s No. 772 fee, 145 ft. S, 882 ft. W of center, Sec. 29-9s-10w ..... Location.

VINTON—CALCASIEU PARISH

Vinton Pet. Co.'s No. 5 Matilda Gray (D.D.), 456 ft. W, 362 ft. N, SE cor. SW NE, Sec. 33-10s-12w..... Sand 3,620-50 ft.; cmtd. 4½-in. liner 3,620 ft.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 34 Watkins, 435 ft. E, 430 ft. S, NW cor., Sec. 24-12s-10w..... Derrick.

Moon Oil Co.'s (R. E. Seiss') No. 1 Breaux, 1,300 ft. N, 150 ft. E of NW cor. of 61-ac. tr., Blk. 26, Sec. 46-12s-10w ..... Drlg. shale and lime 2,750 ft.

Pop Oil Co.'s No. 1 Ellender, 617 ft. N and 931 ft. W of SE cor. NE, Sec. 19-12s-10w ..... Rigging.

Sultex Oil Co.'s No. 1 Dorion, 181 ft. W, 12 ft. N of junction of W line of Sec. 46-12s-10w and S bank of Kelso Bayou in Sec. 36..... T.D. 4,328 ft.; sidetracked at 994 ft.; drlg. rock 2,125 ft.

J. D. Sutton's No. 7 Irwin, 1,820 ft. N and 1,490 ft. W of SE cor. of Sec. 13-12s-10w ..... Drlg. shale and lime 2,725 ft.

The Texas Co.'s No. 9 State, 2,229 ft. N, 918 ft. E from SE cor. Sec. 13-12s-10w, in 12s-9w ..... Derrick.

The Texas Co.'s No. 10 State, 2,375 ft. N, 564 ft. E, SE cor. Sec. 13-12s-10w, in Twp. 12s-9w..... Location.

Union Sulphur Co.'s No. 2 Gulf Land (Humble lease), 661 ft. E and 810 ft. N of SW cor., Sec. 12-12s-10w.. Drlg. sand and shale 5,510 ft.

Union Sulphur Co.'s No. 1 Gulf land (Pure Oil Co. lease), 1,958 ft. N, 400 ft. W of SE cor., Sec. 11-12s-10w ..... Drlg. shale 8,178 ft.

Yount Lee Oil Co.'s No. 51 State, 545 ft. S, 560 ft. E of NW cor. of Sec. 24-12s-10w ..... Lime rock 2,858 ft.; temp. abd.

Yount Lee Oil Co.'s No. 11 School land, 2,310 ft. W and 1,608 ft. N, SE cor., Sec. 15-12s-10w ..... Drlg. sand and shale 3,420 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 12-13s-8w, 800 ft. S 66 deg. 42 min. from No. 9 ..... Location.

LEESVILLE—LA FOURCHE PARISH

The Texas Co.'s No. 5 L.L.&E., 3,858 ft. S, 105 ft. E of NW cor. of Sec. 26-21s-22e ..... Drlg. gumbo 1,100 ft.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Great Southern Oil Co.'s No. 1 Schevojsa, 329 ft. N, 78° E of N cor. B. Dottery Sur. ..... Drlg. shale 1,650 ft.

O'Hara Oil & Gas Co.'s No. 1 Neilius, J. C. Cummings Hacienda Sur., 650 ft. N of No. 1 Schroeder in 18-acre tract, north edge Mill Creek ..... Derrick.

BRAZORIA COUNTY

John Deering's No. 1 C. W. Chapman, 294 ft. from S line and 104 ft. from E line of Lot 2, Andrew Robinson Sur. ..... Drlg. sticky shale 2,886 ft.

J. R. Ingram's No. 2 Levitt, John Peske Sur., 75 ft. NW of No. 1 ..... Cored sandy shale 2,168 ft.

The Texas Company's No. 3 Belcher, Manvel, Harvey N. Little Sur., 1,220 ft. southwesterly and 200 ft. southeasterly out of N cor. of Belcher lease ..... Rigging up.

BURLESON COUNTY

Ball & Knob's No. 1 Polansky, M. B. Lawrence Sur., 359 ft. from E line and 469 ft. from N line of 153-ac. tr. ..... Drlg. 500 ft.

E. M. Bracey et al's No. 1 Bracey, J. Lastly Sur., 880 ft. from E cor. of P. Taylor 110 acres, SE along NE line of J. G. Houston 160 acres, thence 180 ft. at right angles in 3-acre tract ..... Drlg. gumbo 620 ft.

Marek & Son's No. 3 A. Marek, N. McFaddin Sur., 1,068 ft. N and 225 ft. W of SE cor. of tract ..... Standing 2,210 ft.

M. O. & T. Corp.'s No. 1 Rigers ..... Drlg. sandy shale 2,725 ft.

Sampson Oil & Gas Co.'s No. 1 Duckworth & Gilley, 100 ft. from S line and 100 ft. from W line of Blk. 8, P. Singleton Sur. ..... Drlg. shale and sand 2,542 ft.

J. E. Stubblefield et al's No. 1 Mitchell, A. T. Woolridge Sur., 31 ft. SW and 4,340 ft. SE of S cor. of Joseph Henson Sur. ..... Gumbo 600 ft.; standing.

COLORADO COUNTY

Coyle-Concord Oil Co.'s No. 1 Nelson, I.&G.N. Sur., Sec. 43 ..... Sandy shale showing gas 3,805 ft.

FORT BEND COUNTY

O'Hara et al's No. 1 Brown, Pliant Lake, Wm. Barrett and Abner Harris Sur., 600 ft. out of SW cor. of Brown 600-acre tract ..... Junked and abd. 4,570.

Naylor & DeCosta's No. 1 Naylor, 4,350 ft. N, 55 deg. E from SW cor. 653-acre tract in Christman Sur. .... Drlg. shale and lime 3,010 ft.

Stone & Wyman's No. 1 Beard, H.&T.C. Sur. No. 118, 1,150 ft. from NW line, 1,392 ft. from NE line..... Coring sandy shale 1,624 ft.

GALVESTON COUNTY

H. H. Stevenson's No. 1 Lobit, J. F. Perry and E. M. Austin Sur., 250 ft. N of Dickinson Bayou, and 250 ft. W of E line of E. Lobit 23-ac. tr. ..... Drlg. 425 ft.

HARDIN COUNTY

W. R. Alexander et al's No. 1 Southwestern Lbr. Co., 150 varas W of C of E line of Mary K. Sherman Sur.. Spudded.

Joe E. Proctor's No. 1 Russell & Teagle, 2,650 ft. E and 2,777 ft. N of NW cor. of Wm. W. Young Sur..... Drlg. shale and lime 1,856 ft.

HARRIS COUNTY

T. V. Buckholve & Sons' No. 1 Miller, Arthur McCormick Sur. ..... D.S. stuck 547 ft; standing.

Crown-Framer Oil Co.'s No. 1 Woodburn, Genoa, August Whitlock Sur., 200 ft. out of NW cor. of tr. .. Derrick.

Crown-Framer Oil Co.'s No. 2 Woodburn, 1,400 ft. S, 400 ft. E of NW cor. August Whitlock Sur. ..... Cmtd. 10-in. csg. 225 ft; T.D. 239 ft; standing.

John Deering's No. 1 Warren, Hockley T. Snell Sur., 100 ft. due south of The Texas Co.'s No. 3 Warren.. Location.

Luckel et al's No. 1 Wilson & Hunt, Wm. Ritchie Sur., 200 ft. from S line and 500 ft. from W line of 50-ac. tract ..... Drlg. gumbo 732 ft.

H. D. Morse et al's No. 1 Schlveinle, Wm. White Sur., 900 ft. S 80° W of NW cor. of Lienberger 20-ac. tract in Blk. 1 ..... Derrick.

JASPER COUNTY

Hext Drlg. Co.'s No. 1 Flourney, B. F. Jones Sur., 900 ft. NW of Helmerich & Payne's No. 1 Flourney ..... Drlg. sandy shale 4,350 ft.

JEFFERSON COUNTY

Elam & Pipkin's No. 2 Broussard, John McGaffey Sur., 150 ft. due E of No. 1 ..... Drlg. gumbo 1,569 ft.

LIBERTY COUNTY

Bain-Rheubotham's No. 1 J. M. Neal, Edward Tanner Sur., 1,800 ft. E, 1,300 ft. N of most westerly NW cor. of Margaret Evans Sur. ..... Drlg. sand and gravel 725 ft.

MATAGORDA COUNTY

Dr. Griffith et al's No. 3 Baer, Big Hill, 5,000 ft. N, 3,000 ft. E from SW cor. of Seth Ingram Sur. ..... Drlg. gumbo 2,597 ft.

Shepherd's Mott Salt Dome Oil Co.'s No. 1 Hawkins, Shepherd's Mott, 5,268 ft. from N line and 1,320 ft. from E line of B. McCarthy Sur. ..... Cmtd. 12½-in. surface csg. 498 ft.

United North & South Oil Co.'s No. 1 Stoddard, J. C. Keller Sur., 150 ft. W and 545 ft. N of SE cor. Blk. 53, Buckeye Townsite ..... Failed to flow when swabbed 7,831 ft.; pulling screen.

MONTGOMERY COUNTY

Alpha Oil Co.'s No. 1 South Tex. Dev. Co., center of Blk. 47, in southeast Alex McCown Sur. ..... Spudded.

Ed Falvey et al's No. 1 McComb, L. Smith Sur., 330 ft. from N and W lines of 160-ac. tract ..... Derrick.

Gohlson Bros. and Rycade Oil Corp.'s No. 1 Drought, 3,340 ft. along N line of Kronkrite Sur., from NE cor., thence 250 ft. S at right angles ..... Shale showing gas 3,125 ft.; reaming.

Heep Oil Corp.'s No. 1 Bent, D. W. Collins Sur., 330 ft. from S line in center east and west of 209-ac. tr.—Drlg. sand and clay 90 ft.

Heep Oil Corp.'s No. 1 Cartwright (D.D.), 2,861.6 ft. southerly along W line of John O. Davis Sur. from NE cor. and thence 450 ft. E—Rebuilding derrick to kill well to deepen 5,078 ft.

Heep Oil Corp.'s No. 2 Cartwright Sur., John Davis Sur., 330 ft. from S line, 400 ft. from E line of tr.—Rig.

Houston Oil Co.'s No. 1 Hamman, Charles B. Stewart Sur., 450 ft. from N and W line of 232.5-ac. tr.—Sticky shale 860 ft.; cmtd. 12½-in. csg.

Kraft & Geniekc's No. 1 South Tex. Dev. Co., T.&N.O. Sur., Blk. 9—Drlg. shale 2,094 ft.

Pevehouse Oil Co.'s No. 1 Sealey, Jas. Pevehouse Sur., 1,575 ft. N of N line of Horton & Woodson's 1,562-acre tract and 2,226 ft. E of W line of H.&W. 1,870-acre tract—Shut down 3,984 ft.

Plummer & McDaniel's No. 1 South Tex. Dev. Co., Theo. Slade Sur., 330 ft. from S and E lines of 60-ac. lease, in Lot 103—Moving in.

Rowe & Flowers' No. 1 Varner, R. House Sur., 330 ft. out of NE cor. of 32-ac. tr.—Drlg. gumbo 2,961 ft.

Rowe & Flowers' No. 1 Alexander, 330 ft. out of SE cor. Lot 20 in the NW A. McCown Sur.—S.D. for drill pipe 2,140 ft.

C. C. Steinberger et al's No. 1 Steinberger, John Davis Sur., 450 ft. from N and W lines of the 250-ac. tract—Rig.

Strake Oil Corp.'s No. 3 South Tex. Dev. Co., 2,475 ft. from W line and 790 ft. from S line of Theo. Slade Sur.—Rig.

NEWTON COUNTY

L. A. James et al's No. 1 Price, T.&N.O. Sur., 1,000 ft. from W line and 500 ft. from N line of tract—Spudded and S.D.

Sun Oil Co.'s No. 1 Peevey Moore Lbr. Co., 2,145 ft. from S line and 1,225 ft. from W line of F. Stoevar Sur. No. 4—Building road to location.

ORANGE COUNTY

Altex Oil Co.'s (Veteran Oil Co.) No. 1 Reed, A. Nelson Sur. No. 1, 500 ft. from N line and 250 ft. from E line of tract—Coring sand 4,787 ft.

POLK COUNTY

Collins & Plummer's No. 2 Collins, Augustine Viesca Sur., 310 ft. S of No. 1 in F. E. Chase 25-ac. tract—Drlg. shale 3,495 ft.

Tony & Purdy's No. 1 Martha Roberts, Joaquin T. De Rumayor Sur.—Rig.

REFUGIO COUNTY

Humble Oil & Ref. Co.'s No. 1 O'Connor (D.D.), 6,612 ft. S from NE cor. along SE line of Lon T. Rios Sur., thence 7,375 ft. W at right angles in John Keating Sur.—Drlg. shale 4,886 ft.

Humble Oil & Ref. Co.'s No. 2 O'Connor, John Keating Sur., 12,625 ft. N of S line at right angles and 8,158 ft. W of E line at right angles—Drlg. sand and shale 5,182 ft.

SAN JACINTO COUNTY

Seven Wells Oil Co.'s No. 1 Foster Lumber Co., 3,000 varas from the E line and 2,000 varas from the S line of H. Alsbury Sur.—Drlg. shale 4,921 ft.

TRINITY COUNTY

Joseph M. Weaver's No. 1 Thompson, 150 ft. out of NE cor. of I.&G.N. Sur., No. 47—S.D. 3,556 ft.

VICTORIA COUNTY

Bunte et al's No. 2 Keeran, Martin DeLeon Sur., 200 ft. E of No. 1—Cored S.W. sand 5,376 ft.

Cullen & West's No. 1 Keeran ranch, Martin DeLeon Sur., 450 ft. from S line, 450 ft. from W line of tr.—Coring sand 5,275 ft.

Houston Oil Co.'s No. 1-A McFaddin, 200 ft. from NE line, 240 ft. from SE line of I.R.R. Sur. No. 20—Drlg. heaving shale 5,285 ft.

Humble Oil & Ref. Co.'s No. 1 Pete Rydolph, John Kemper Sur., 2,617 ft. from E line and 1,013 ft. from W line of lease—Drlg. shale 724 ft.

The Texas Company's No. 4 McFaddin, 86 deg. E, 1,738½ ft. from NE cor. of Andrew J. Gray Sur. in John M. Rine Sur.—T.D. 2,840 ft; sidetracked 1,161-76 ft; cmtd. hole to 1,168 ft; drill out cmt.; pumping mud to kill gas.

Union Oil Co.'s No. 1 Keeran, 4,166 ft. SW along SE line of Gulf Prod. Co.'s 2,500-ac. lease from most easterly cor., thence 1,390 ft. SE at right angles in Martin DeLeon Sur.—Drlg. gumbo 725 ft.

WALKER COUNTY

Hart Oil Co.'s No. 1 Thompson Lbr. Co., Jose Ortega Sur., 1,265 ft. S, 1,876 ft. W of SW cor. of J. B. Gibson's 71-acre tract—Shut down for repairs 2,090 ft.

Geo. F. Kerr's No. 1 Smithers Bros., S. Manning Sur.—No report.

WALLER COUNTY

McDaniel and associates' No. 1 Citizens State Bank, B.B.B.&C. Sur., C of 160-acre tract—No report.

SOUTH LOUISIANA

ASCENSION PARISH

McElroy Pet. Co.'s No. 2 Lacey, 150 ft. S, 150 ft. W of NE cor of Sec. 29-10s-4e—Fishing D.S. 4,560 ft.

Rio Bravo Oil Co.'s No. 1 Community Lease, Darrow, 200 ft. from N line and 1,500 ft. E at right angles from SW cor. of Sec. 15-10s-2e—Moving in rig.

CALCASIEU PARISH

Crawford Doyle's No. 1 Johnson, Sec. 23-9s-13w—Shut down 875 ft.

Wilfred Lahay's No. 1 Jardell, Sec. 16-10s-12w—Shut down 3,650 ft.

CAMERON PARISH

Brownie-Babbette Oil Co.'s No. 1 R. A. Moore, 562 ft. W, 50 ft. S of NE cor. E half SE of Sec. 18-12s-12w—Drlg. shale 6,129 ft.

EVANGELINE PARISH

Emile LeDeau's No. 1 Vidrine, 260 ft. W and 350 ft. S of NE cor. of Sec. 47-3s-2e—Shut down 1,420 ft.

IBERIA PARISH

Warrick Oil Co.'s No. 1 Bernard, 912 ft. N and 150 ft. E of SW cor. Sec. 54-12s-7e—Standing 2,982 ft.

IBERVILLE PARISH

Standard Oil Co.'s No. 2 Myrtle Grove-Wilbert, Bayou Choctaw, 2,040 ft. N and 600 ft. W of C of Sec. 52-9s-11e—No report.

PLAQUEMINES PARISH

Lake Washington-Freeport Sulphur Co.'s No. 1 Cockrell-Moral, Sec. 14-20s-26e, 3,442 ft. E and 46 ft. N of station—Anhydrite 1,548 ft; cmtd. hole to 1,165 ft; comp. flowing 100 bbls. daily; ¼-in. choke.

POINTE COUPEE PARISH

Grand Bay Oil & Gas Co.'s No. 1 Moniotte, 10,140 ft. S and 13,450 ft. E of NW cor. Twp. 5s-11 in Sec. 34—Shut down 310 ft.

TERREBONNE PARISH

Freeport Sulphur Co.'s No. 3 Wurzlow (Bay St. Elaine), 1,132 ft. from W line, 1,530 ft. S of NE cor. of Sec. 17-22s-18e—Sulphur test.

The Texas Company's No. 7 State-Lake Pelto, 2,216 ft. N, 104 ft. W of SE cor., Sec. 8-23s-18e—Location.

The Texas Company's No. 4 State-Lake Barre (D.D.), 1,900 ft. S and 600 ft. E of NW cor., Sec. 30-21s-20e—No report.

The Texas Company's No. 10 State, Lake Barre—Location.

The Texas Co.'s No. 14 State Lake Barre, 400 ft. S, 850 ft. W, NW cor. Sec. 30-21s-20e, in Sec. 37-21s-19e—Drlg. shale and lime 2,275 ft.

The Texas Co.'s No. 16 State-Lake Barre, 1,500 ft. S, 150 ft. E of NW cor., Sec. 30-21s-19e—Capping piling.

VERMILLION PARISH

Pure Oil Co.'s No. 1 Mulvey Irrigation (Gueydan), 1,170.9 ft. from N line and 2,252.5 ft. from W line of Sec. 34-11s-1w—Spudded.

WEST FELICIANA PARISH

Putnam Synd.'s No. 3 Como Plantation, Sec. 51-1s-14w—Shut down 2,449 ft.

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The OIL and GAS JOURNAL
PRODUCING REFINING ENGINEERING MARKETING
TULSA, OKLA.

MARKET RECORD OF OIL SECURITIES

Speculative interests in stocks recorded a sharp falling off during the past week and trading volume early in the period declined to the lowest levels since mid-year in 1924. As trading fell off, price swings narrowed. There was little fundamental change in the position of the oils during the week, but the outlook for the leading companies appeared perceptibly brighter.

Standard of Indiana

Under the third employes' stock purchase plan of Standard Oil Co. of Indiana, which terminated on March 31, last, 375,428 shares of the company's capital stock was distributed to 17,282 employes. Employes now own 4.6 per cent, or 778,702 shares. A fourth stock acquisition plan is now in effect, which will take in employes of Pan American Petroleum & Transport Co.

Illinois Pipe Line

Illinois Pipe Line Co. has declared a quarterly dividend of $4.50 a share, payable June 15 to stock of record June 11.

Columbia Gas

Columbia Gas & Electric Corp. has declared the regular quarterly dividends of 25 cents, payable in 5 per cent convertible preference stock, on the common stock, $1.25 on the 5 per cent cumulative preferred and 5 per cent convertible preferred, and $1.50 on the 6 per cent preferred, all payable August 15 to stock of record June 20.

Consolidated Royalty Oil

Directors of the Consolidated Royalty Oil Co. declared a quarterly dividend of 5 cents per share, payable July 25, 1932, to stockholders of record July 15.

Southern California Gas

Southern California Gas Corp. has declared a quarterly dividend of $1.62½ on the $6.50 preferred, payable August 31 to stock of record July 31.

Tide Water-Associated

Tide Water-Associated Oil Co. and subsidiaries report for the first quarter of 1932 consolidated net profit of $527,602 after interest, depreciation, depletion, taxes, preferred dividends, etc., equal to 78 cents per share on 674,130 shares of 6 per cent preferred, excluding 21,382 shares held in the treasury. This compares with net loss of $191,575 in the March quarter last year.

Deep Rock Oil

Deep Rock Oil Corp. reports for 1931 gross earnings of $13,541,489, compared with $18,723,391 in the previous year. After deducting operating expenses, maintenance and taxes, interest charges and preferred dividends, the deficit for 1931 amounted to $146,119, compared with balance of $726,942 for 1930.

Holders of the 6 per cent convertible notes of the Shaffer Oil & Refining Co., now the Deep Rock Oil Corp., have been asked to deposit their securities with the first Trust & Savings Bank, as trustee, and to agree to an extension of their maturity to March 1, 1937. The present maturity date is March 1, 1933.

Pure Oil

The committee on securities of the New York Stock Exchange has been notified by the Pure Oil Co. of a proposed reduction in capital represented by common stock from $25 to $10 a share and a change in par value from $25 to no-par. each present share to be exchangeable for one new share.

El Paso Natural Gas

El Paso Nautral Gas Co. reports for 1931 net revenue before depreciation and charges of $1,110,610, compared with $847,087 in 1930. The report includes about six and one-half months' operation of the new Western Gas Co. line to Douglas and Bisbee, Ariz., and Cananea, Mexico.

Margay Oil

Margay Oil Co. reports for 1931 net loss of $228,179 after taxes and charges, compared with net loss of $141,833 in 1930.

Twenty Representative Stocks

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange and New York Curb based on closing quotations for Wednesday, was as follows:

Dec. 16	12.60	Mar. 23	13.02
Dec. 23	12.06	Mar. 30	13.85
Dec. 30	12.31	Apr. 6	13.15
Jan. 6	12.69	Apr. 13	11.31
Jan. 13	13.63	Apr. 20	12.11
Jan. 20	13.14	Apr. 27	12.46
Jan. 27	12.79	May 4	11.73
Feb. 3	13.19	May 11	13.22
Feb. 10	12.02	May 18	12.57
Feb. 17	13.28	May 25	12.44
Feb. 24	13.45	June 1	11.34
Mar. 2	13.61	June 8	11.39
Mar. 9	14.38	June 15	11.86
Mar. 16	13.00	June 22	11.41

Associated Oil

Associated Oil Co. has declared the regular quarterly dividend of 25 cents per share on the common, payable July 14 to stock of record July 1.

Darby Petroleum

Darby Petroleum Co. reports for 1931 net loss of $993,368 after depreciation, depletion, taxes, interest, surrendered leaseholds, abandoned wells, development cost of dry holes and loss from sales or

Independent Oils on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended June 18)

1932 High	1932 Low	Week ended June 18 Sales	High	Low	Close June 22	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
¾	⅛	1,700	⅜	⅛	¼	American Maracaibo	(sh)	700,000	N.P.	....	.....	8⅝	1⅛	4½	½	1¾	¼
2¾	¾	300	⅞	⅞	1⅛	Arkansas Natural Gas	(sh)	4,084,225	N.P.	....	.....	26	3¾	16¾	4⅝	6½	1⅞
2⅝	⅛	900	⅞	¾	¾	Arkansas Natural Gas "A"	(sh)	3,522,521	N.P.	....	.....	24¾	6½	16⅝	4⅝	6¾	1⅞
5½	2⅜	300	2½	2½	..	Arkansas Natural Gas pfd.	(sh)	2,193,000	$10	....	4- 1-32	9	4	8⅛	6¼	7	3⅜
9¾	7	2,600	7⅝	7¼	..	British American Oil Corp.	(sh)	2,622,642	N.P.	20cQ	7- 2-32	62	7⅞	23	13⅜	16⅞	6¼
⅝	¼	1,900	¼	¼	¼	Carib Syndicate		$131,250	25c	....	.....	4⅞	1	2⅜	⅝	2⅜	¼
6⅛	1¼	33,900	2⅜	2¼	2⅛	Cities Service	(sh)	36,418,721	N.P.	30cA§	6- 1-32	68⅛	20	44¼	13	20¾	5
53⅜	10	1,500	16	13	13	Cities Service pfd.	(sh)	1,125,931	N.P.	50cM	6- 1-31	98¾	84	93⅞	78¼	84¾	35⅜
⅛	⅛	100	⅛	⅛	..	Colombia Syndicate		3,250,000	N.P.	....	.....	..	..	21	3⅜	7⅛	1
1⅞	½	200	⅝	⅝	⅝	Columbia Oil & Gasoline v.t.c.	(sh)	$2,000,000	$1	....	.....	2	½	¾	⅛	½	⅛
⅝	¼	1,400	⅜	¼	..	Colon Oil	(sh)	2,200,000	N.P.	....	.....	15	3⅛	8¼	1⅛	3⅛	¼
1⅜	1	No sales	..	..	..	Consolidated Royalty Oil Co.		$5,527,880	$10	5cQ	4-25-32	11½	2½	5⅞	2	2¾	1
1	⅛	200	⅛	⅛	..	Cosden Oil	(sh)	323,950	N.P.	....	.....	135	42	74¾	1¼	3¾	⅝
2½	1⅝	200	2⅛	2⅛	..	Darby Petroleum	(sh)	609,696	N.P.	....	10-15-30	26	6½	21¾	4¼	5	1⅜
2⅛	1	No sales	..	..	..	Derby Oil & Refining	(sh)	500,000	N.P.	....	.....	11	2	11	2	6	1½
24½	10½	No sales	..	..	..	Derby Oil & Refining pfd.		48,500	N.P.	....	.....	44	20¾	60	30	40½	25
35⅞	23	2,600	25½	24¼	..	Gulf Oil Corp.	(sh)	4,504,921	$25	....	10- 1-31	209	115	166⅞	58½	75½	25⅜
4½	2¾	No sales	..	..	..	Indian Terr. Illum. Oil "B"	(sh)	7,090,037	N.P.	.....	.....	..	..	53½	12⅝	16⅞	5
¼	⅛	500	⅛	⅛	..	Intercontinental Petroleum		$5,682,000	$5	....	.....	2⅞	⅜	1¾	⅝	⅝	⅛
⅝	⅜	700	⅝	⅜	..	Kirby Petroleum	(sh)	750,000	N.P.	....	.....	3⅝	1¼	3	⅞	1⅞	¼
⅛	⅛	No sales	..	..	..	Leonard Oil & Development		$50,000,000	$25	....	.....	14⅞	2½	5	¾	2	⅛
⅞	½	4,000	½	½	..	La. Land & Exp.	(sh)	3,000,000	N.P.	....	.....	6⅛	1	4¾	½	1½	¼
2⅝	⅞	No sales	..	..	..	Lion Oil & Refining	(sh)	250,000	N.P.	....	10-27-30	38⅞	18	29	4⅞	6¾	1½
9¼	3⅝	900	4¼	3⅞	3⅞	Lone Star Gas	(sh)	5,000,000	N.P.	16cQ‡	6-30-32	67⅞	28	55⅞	19⅝	25	5½
⅛	⅛	1,000	⅛	⅛	..	Magdalena Syndicate	(sh)	850,000	$1	....	.....	1¼	½	½	⅛	½	¼
6⅛	3¾	No sales	..	..	..	Margay Oil Corp.		160,000	N.P.	25cQ	4-11-32	38½	14	16	3	5	1⅞
5¼	2⅛	400	2¼	2⅛	..	Memphis Natural Gas	(sh)	920,000	N.P.	15cQ	4-15-32	24	8⅛	22¼	7½	12⅛	4½
.2	2	No sales	..	..	..	Mexico-Ohio Oil Co.		500,000	N.P.	....	.....	6⅜	2¼	7½	1¾	4⅞	1½
⅛	⅛	No sales	..	..	..	Mountain & Gulf		$4,000,000	$1	....	4-15-31	1½	½	¾	⅜	½	⅛
3¼	2⅛	1,400	3¼	3⅛	3	Mountain Producers		$1,682,182	$10	20cQ	4- 1-32	22⅞	7	12⅛	3¾	5⅞	2
13½	8	No sales	..	..	10¼	National Fuel Gas	(sh)	3,810,183	N.P.	25cQ	4-15-32	43⅞	23	41⅝	19⅜	28½	9¾
⅜	⅜	No sales	..	..	..	New Bradford Oil		$7,224,186	$5	....	4-15-31	5	2½	3½	1⅛	1½	½
⅜	⅜	No sales	..	..	..	New Mexico and Arizona		$1,000,000	$1	....	.....	9⅜	2¼	7¼	1½	3	¾
1	⅝	No sales	..	..	..	North Central Texas	(sh)	262,446	$5	....	9- 2-30	18½	6½	11¼	2⅛	3¼	⅝
a'	⅛	No sales	..	..	⅛	North European Oil	(sh)	1,372,391	N.P.	....	.....	..	..	6¼	⅝	2⅛	¼
6¼	3⅛	200	3⅛	3⅛	..	Pacific Western Oil	(sh)	1,000,000	N.P.	....	.....	26⅝	12⅛	19½	5½	15	2⅞
⅛	⅛	200	⅛	⅛	⅛	Pandem	(sh)	1,291,403	N.P.	....	.....	3½	½	2½	¼	½	⅛
½	¼	400	¼	¼	..	Pantepec Oil	(sh)	1,595,500	N.P.	....	.....	10½	1⅞	4⅜	⅞	2	⅝
7¾	6	No sales	..	..	..	Plymouth Oil	(sh)	1,050,000	$5	25cQ	7- 1-32	37	22	27½	16¼	19	6
½	⅛	500	⅛	⅛	..	Reiter-Foster	(sh)	388,584	N.P.	....	12- 2-29	8½	1⅛	5⅝	1	3⅛	¼
1	⅝	200	½	½	..	Richfield Oil pfd. x.w.	(sh)	399,950	$25	....	.....	31½	22	23½	6½	11	⅛
1¼	¾	No sales	..	..	..	Ryan Consolidated	(sh)	296,931	N.P.	....	.....	11	2	8⅝	2	3	⅝
½	⅛	200	¾	¾	..	Salt Creek Consolidated	(sh)	1,286,300	$10	....	4- 1-31	5⅞	1⅞	2½	½	1⅜	⅛
4⅛	2⅞	800	3¾	3½	..	Salt Creek Producers	(sh)	1,496,859	$10	25c	5- 2-32	25⅞	9	15¼	5¼	7¾	2⅜
½	¼	1,700	¼	¾	..	Sunray Oil	(sh)	1,163,185	$5	....	4-15-31	12	5⅝	10	2	5¼	⅛
6⅝	4½	100	5	5	..	Texon Oil & Land	(sh)	936,036	N.P.	25c	6-30-32	23	7⅛	19½	8	12⅞	2½
½	⅛	1,000	⅛	⅛	..	Venezuelan Petroleum	(sh)	755,090	$5	....	2-15-30	6½	1¾	4½	⅜	1⅞	¼
2	1¼	No sales	..	..	..	Woodley Petroleum		$500,000	$1	....	3-31-29	9½	2	5	½	3½	1⅜
⅝	⅛	4,600	⅝	½	..	Y Oil & Gas		100,000	N.P.	....	.....	2⅞	½	2½	⅝	2¼	⅛

*Ex-dividend. ‡Payable in stock. §Paid in lieu of regular cash dividend of 2 per cent.

other disposition of capital assets. In 1930 net profit was $362,198, after depreciation, depletion, Federal taxes, leaseholds surrendered, and abandoned wells, equal to 71 cents a share on 609,696 no par shares of capital stock.

Lion Oil

Lion Oil Refining Co. reports for 1931 net loss of $278,879, after interest, depreciation, depletion, minority interest and other charges. This compares with loss of $536,016 in the previous year. T. H. Barton, president, in his report to stockholders, says, in part: "The oil industry has just emerged from its poorest year. Many plans are advanced for its improvement and at this time gasoline tank car markets are advancing. Crude markets are reported to be in a strong position. In the opinion of your management, much will depend upon the nature of co-operation as between our leading interests. This industry involves enormous property and employment. To think it will be allowed to continue adrift is inconceivable."

Atlantic Lobos

Atlantic Lobos Oil Co. reports for 1931 net profit of $5,933. The company received a tax refund from the U. S. Government for 1920 and 1921 of $93,909 during the year.

Plymouth Oil

Plymouth Oil Co. reports for the three months ended March 31, 1932, profit of $462,291 after depreciation, depletion and other charges, but before federal taxes.

Standard Oil Stocks on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended June 18)

1932 High	1932 Low	Week ended June 18 Sales	Week ended June 18 High	Week ended June 18 Low	Close June 22	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
6¼	6	No sales	..	..	..	Borne Scrymser		$1,000,000	$25	....	10-15-30	46½	25	25	11¼	16	6
35	24⅛	100	25½	25½	..	Buckeye Pipe Line		$10,000,000	$50	$1Q	6-15-32	74½	55	69	39⅞	56	30
90	53	No sales	..	..	67	Chesebrough Mfg.		$3,000,000	$25	$1Q‡	6-30-32	210	130	184⅞	104¼	129½	75
2½	1¾	1,900	2¼	2⅛	2¼	Creole Petroleum	(sh)	5,977,872	N.P.	....	.....	11¾	5⅜	7⅞	3	3⅞	1⅝
35	18	No sales	..	..	..	Eureka Pipe Line		$5,000,000	$100	$1Q	5- 2-32	70½	40	54¾	26	36	19
40	35⅝	400	37½	36	..	Humble Oil & Refining		$74,103,300	$25	50cQ	7- 1-32	128	74⅛	119	57¼	72	44¼
9½	6¼	5,100	7⅝	6⅝	6½	Imperial Oil of Canada	(sh)	26,557,496	N.P.	12½cQ	3- 1-32	41	22	30	15	18¼	7⅝
7½	2⅛	No sales	..	..	..	Indiana Pipe Line (new)		$3,000,000	$10	25cQ	2-15-32	41⅞	26	41	14½	21⅛	5½
10⅝	8	7,100	9⅝	8¼	..	International Petroleum (new)	(sh)	14,247,088	N.P.	25cQ	3-15-32	30⅜	15	24	11⅜	15½	7⅜
10½	6	200	6½	6⅜	..	National Transit		$6,362,500	$12.50	25cQ	6-15-32	25⅛	10⅛	22⅜	11½	17½	5
4	2⅛	No sales	..	..	..	New York Transit		$500,000	$5	10eQ	4-15-32	17½	10	21⅜	10⅛	14½	5⅛
4⅜	3⅛	No sales	..	..	..	Northern Pipe Line		$1,200,000	$10	25c	1- 2-32	63	41	54	26¼	35½	20
6⅜	4	No sales	..	..	..	Penn Mex Fuel		$10,000,000	$25	50c	5-25-32	44½	20	32	12	15½	5½
14½	9⅝	100	12½	12½	..	South Penn Oil		$30,000,000	$25	25cQ	6-30-32	60¼	35⅛	45⅞	16⅛	23⅞	9¼
10	6⅛	No sales	..	..	..	Southern Pipe Line		$1,000,000	$10	35cQ	6- 1-32	22½	13	20⅞	8⅜	17	7
37	27	50	27	27	..	Southwest Pennsylvania Pipe Line		$1,750,000	$50	$1Q	7- 1-32	70	60	64	32	42½	25
19¼	13⅛	28,300	18⅜	17⅜	18	Standard Oil of Indiana		$424,914,895	$25	25cQ	6-15-32	63	45	59⅞	30	38½	13½
15⅞	8⅝	800	10	9⅝	9⅝	Standard Oil of Kentucky		$25,654,516	$10	30cQ	6-30-32	46⅞	29	40½	18⅝	23⅝	12⅛
19	10½	No sales	..	..	..	Standard Oil of Nebraska		$4,770,550	$25	25cQ	6-21-32	50¼	40	48⅞	34⅝	36½	16
28⅛	15½	300	22¾	20½	..	Standard Oil of Ohio		$18,811,675	$25	62½cQ	4- 1-32	129	60	108½	43¼	62½	23
2	1⅝	200	1⅝	1⅝	..	Swan-Finch Co.	(sh)	34,480	$25	....	1-15-29	18	10	10	4	4½	1

*Ex-dividend. †Unit of trading less than 100 shares. ‡Plus 50 cents extra.

Transactions in Oil Shares on New York Stock Exchange

Quotations Compiled by Francis, Bro. & Co., Members of the New York Stock Exchange and Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended June 18)

1932 High	1932 Low	Week ended June 18 Sales	Week ended June 18 High	Week ended June 18 Low	Close June 22	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
16⅜	12	600	14½	14	14⅜	Amerada Corp.	(sh)	922,075	P.N.	50cQ	1-30-32	42⅝	17½	31½	16½	23	11¼
4	¼	No sales	..	..	..	American Republics Corp.	(sh)	209,180	N.P.	...	12-31-30	64¾	12½	37	5½	12⅜	1¼
9¾	6¾	No sales	..	..	..	Associated Oil		$57,260,300	$25	25cQ	4-15-32	47¼	34½	51	30	31	8¾
12⅞	8⅝	5,900	11	10	10⅛	Atlantic Refining		$67,416,050	$25	25cQ	3-15-32	77⅞	30	51⅜	16⅝	23⅝	8⅝
5⅞	3⅜	8,500	4½	3⅞	4⅜	Barnsdall Corp.		$11,293,895	$5	....	5-11-31	49⅛	20	34	8⅝	14½	4
16⅛	4¼	17,500	7½	6⅛	6¾	Columbia Gas & El.	(sh)	11,684,220	N.P.	25cQ	5-15-32	140	52	87	30⅝	45⅝	11⅝
11	9	No sales	..	..	..	Colonial Beacon Oil	(sh)	1,444,970	N.P.	....	12-22-22	32⅞	12½	20⅜	8¾	10½	7½
7⅛	4	36,000	5⅛	4⅜	4¾	Consolidated Oil Corp.	(sh)	14,190,000	N.P.	....	.....	..	..	..	..	..	..
7	3⅝	7,800	4¾	4	4¼	Continental Oil of Delaware	(sh)	4,741,554	N.P.	....	12-15-27	47⅞	18	30½	7¾	12	5
35¾	10	7,400	12	10⅞	11	General American Tank Car	(sh)	751,638	N.P.	$1Q	1- 1-32	123¾	75	111⅞	53½	73½	28
15½	4⅜	3,100	6½	5	..	General Asphalt	(sh)	413,333	N.P.	25cQ	6-15-32	94⅜	42¼	71½	22⅜	47	9⅝
24⅜	8¾	4,300	12⅜	10⅜	10¾	Houston Oil		$24,968,600	$100	....	10-17-30	109	26	116⅞	29¼	68½	15⅜
1⅝	1	200	1	1	..	Indian Refining		$12,564,070	$10	....	10- 1-30	53	13⅛	17	2	4⅝	1⅛
1⅝	¾	No sales	..	..	..	Louisiana Oil Refining	(sh)	1,190,063	N.P.	....	.....	18	7	12	3½	4½	1
1	½	No sales	..	..	..	Maracaibo Oil	(sh)	330,000	N.P.	....	.....	18½	5⅛	10⅜	1⅜	3¾	½
6½	3¾	1,900	4⅜	4⅛	4¼	Mid-Continent Petroleum	(sh)	1,857,912	N.P.	....	2-16-31	39⅞	22⅛	32	11	16¾	5
9¼	3½	No sales	..	..	5½	National Supply of Delaware	(sh)	390,879	$50	....	5-15-31	144	98½	124¾	60	70¼	5
8½	5	6,000	7½	6¾	..	Ohio Oil	(sh)	6,648,052	N.P.	20cQ	6-15-32	79⅞	64¼	32	16	19½	5⅛
7⅞	7⅜	100	7⅞	7⅞	..	Pan American P. & T. new	(sh)	1,000,000	$5	25cQ	6-30-32	69	40½	46½	42	35⅛	20
8¼	7⅞	300	8¼	7⅞	..	Pan American P. & T. "B" new	(sh)	2,474,288	$5	25cQ	6-30-32	69¼	40½	67¼	30	36½	18
1¼	½	100	½	½	..	Panhandle P. & R.	(sh)	199,370	N.P.	....	.....	15¼	3	12¾	1¾	4¼	⅝
6½	2	6,300	4	3⅜	3⅜	Phillips Petroleum	(sh)	2,593,075	N.P.	....	1- 2-31	47	24¼	44⅝	11½	16⅝	4
½	¼	200	⅜	¼	..	Pierce Oil Corp.		$29,622,831	$25	....	*	3⅜	1	2½	½	1½	¼
1⅛	½	1,200	⅝	½	⅝	Pierce Petroleum	(sh)	2,500,000	N.P.	....	2-16-31	5⅞	½	7⅛	1⅛	3⅝	½
7⅛	3½	No sales	..	..	5¾	Prairie Oil & Gas		$61,035,800	$25	....	3-31-31	65⅜	40½	54	11¼	20⅜	4½
9¾	5½	800	7	6½	7	Prairie Pipe Line		$101,250,000	$25	....	6-30-31	65	45	60	16⅝	28½	5⅞
1⅝	⅛	200	¼	¼	..	Producers & Refiners		$37,438,950	$50	....	9-15-23	25⅞	4	11⅞	1	6	1
9¾	1	60	1¾	1¾	..	Producers & Refiners pfd.		$2,845,350	$50	....	5- 4-25	46¾	25½	40	11½	16	3
5½	2⅞	2,000	3⅝	3¼	3¼	Pure Oil		$75,959,250	$25	....	9- 1-30	30¾	20	27¼	7⅝	11⅞	3¼
¾	⅜	1,100	⅜	⅜	..	Richfield Oil (new)		$52,410,875	N.P.	....	.....	49⅝	20	9¾	4⅛	6⅜	⅝
2½	1¾	300	2	2	2⅛	Rio Grande Oil	(sh)	1,236,270	N.P.	....	7-25-30	42½	15	25¾	5	10¼	1¼
23	12⅛	5,000	16⅜	15¼	15½	Royal Dutch N. Y.	(sh)	611,303	....	81c†	.....	64	43⅛	56½	36⅞	42⅝	13
9⅞	6⅝	8,800	8¼	7¼	7½	Seaboard Oil of Delaware	(sh)	1,244,383	$4	10cQ	6-15-32	59⅜	8¼	37	9¾	20¾	5½
15¾	8	130	10⅛	10⅛	10⅛	Shell Transport & Trading Co.		£23,985,000	£1	55c†	.....	51½	40⅝	48⅜	26	34	5
4⅛	2½	2,900	3	2½	2¾	Shell Union Oil	(sh)	13,066,497	N.P.	....	6-30-30	31¾	19	25½	5¼	10¼	2½
31	18	900	20	19	19	Shell Union Oil pfd.	(sh)	400,000	$100	....	7- 1-31	108¼	93	106¼	55	78	15
6	8¼	1,800	4	4	4	Simms Petroleum	(sh)	600,000	$20	....	9-15-30	40⅛	15	37	5⅝	11	3½
4½	2½	1,300	3	2⅞	..	Skelly Oil		$27,441,250	$25	....	12-15-30	40½	28	12	10⅛	12⅞	2
19	12	No sales	..	..	..	Skelly Oil pfd.	(sh)	119,800	$100	....	5- 1-31	..	..	99¾	42	62	10
10¾	5¼	25,400	7⅜	6½	6⅞	Socony-Vacuum		$793,613,588	$25	20cQ	6-15-32	..	..	106⅜	98	106	87⅛
91½	81	1,000	85	84½	..	Standard Oil Export pfd.	(sh)	764,885	$100	$2.50SA.	6-30-32	..	..	..	..	21	8⅜
27¼	15⅛	18,400	18⅞	17½	18½	Standard Oil of California	(sh)	13,102,900	N.P.	50eQ	6-15-32	81⅞	51½	75	42½	51¾	23⅛
12⅜	7	200	7¼	7¼	7	Standard Oil of Kansas		$8,000,000	$25	....	3-16-31	33¾	18	49	14⅜	19	7¾
31½	19⅞	68,000	26⅜	24½	24⅜	Standard Oil of New Jersey		$637,961,700	$25	25cQ‡	6-15-32	83	49	84⅞	32½	52½	26
32	24¾	500	27	27	..	Sun Oil	(sh)	1,416,869	N.P.	25cQ	6-15-32	68⅜	55	70	39	45¼	26¾
⅝	¼	100	½	½	..	Superior Oil Corp.	(sh)	766,979	N.P.	....	12-20-30	24	5¼	9⅜	¾	1⅜	¼
13⅞	9⅜	10,600	10⅝	9⅞	10	The Texas Corporation		$246,204,900	$25	25cQ	7- 1-32	71⅞	50	60½	28¼	36¼	9⅞
2⅝	1½	600	1⅞	1⅝	1⅝	Texas Pacific Coal & Oil Co.		$9,304,890	$10	....	12-31-29	23⅞	9½	14½	4	6½	1⅞
9	5	100	6	6	..	Tide Water Oil	(sh)	2,191,759	N.P.	25cQ	6-30-32	40	14	31	13	18	9⅞
41	30	100	33½	33½	33	Tide Water Oil pfd.	(sh)	199,446	N.P.	$1.25Q	2-15-32	97½	85⅛	94⅞	71	83	30
3½	2	3,300	2¼	2⅛	2⅛	Tide Water Associated	(sh)	5,560,424	N.P.	....	2-16-31	23½	10	17¾	5⅞	9	2⅛
30¾	20	2,700	28⅞	28	26⅛	Tide Water Associated pfd.		$73,284,500	....	$1.50Q	7- 1-32	90⅞	74⅛	89¾	55	68	20½
13⅞	8⅛	3,100	9⅜	8⅞	9⅜	Union Oil of California		$104,342,375	$25	35eQ	2-10-32	57	42⅛	50	10⅛	26⅝	11
19¼	12	200	12½	12	..	Union Tank Car	(sh)	1,254,048	N.P.	35eQ	6- 1-32	163¾	121⅞	38½	23	25⅛	16
1½	½	400	⅝	½	..	Warner-Quinlan	(sh)	632,948	N.P.	....	7- 1-30	42⅞	15	27	4¼	7⅜	⅞
5¾	2¾	8,800	4¼	2⅞	3½	Wilcox Oil & Gas	(sh)	428,967	$5	...	5-10-28	29¾	12⅞	21	6½	9⅝	2¾

*Ex-dividend. †Final dividend for 1931. ‡Plus extra dividend of 25 cents.

In comparing highs and lows for the several years in the three tables, it will be necessary to take into consideration cases where there have been stock split-ups.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas, and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

GRAVITY OF CRUDE OIL AND GASOLINE YIELD

It would be of value if you could furnish data showing the gravity with gasoline yield, by natural topping, of the typical crude oils of the United States. —A. K. G.

There was an article in The Oil and Gas Journal November 26, 1925, page 52, by James McIntyre, giving a gravity classification of the crude oils of the United States as produced at that time. Out of a total of 1,083,589 bbls. of light oil, 27° to 43° and above, the largest quantity, 271,935 bbls., ranged between 38° and 39.9° A.P.I. gravity. The next in quantity was 251,855 bbls. of 36° to 37.9° gravity. The material may be summarized as follows:

PETROLEUM YIELDING GASOLINE, 1925

	Bbls. daily
Light oil east of Calif., 27°-43°+..	1,083,589
California light oil 29°-40°	107,000
California heavy, 20°-28°	478,700
Others, nongasoline	401,620
Total	2,070,909

The production east of California was graded by Mr. McIntyre as shown in the table.

CRUDE OIL PRODUCTION OF U. S., 1925
Arranged by Gravity
(Excluding California)

A.P.I. gravity—	Bbls. daily
43°+	87,522
41°-43°	124,860
40°-41°	54,470
38°-40°	271,935
36°-38°	251,855
34°-36°	130,725
32°-34°	77,190
30°-32°	33,562
27°-30°	51,470
Total	2,070,909

The actual gasoline content of these oils was not shown. However, arranging the information from various sources the average yield of gasoline has been obtained as shown in the table.

GRAVITY AS INDICATING GASOLINE YIELD

A.P.I. gravity crude oil	Percentage of gasoline by topping
27°-30°	20.6
30°-32°	22.0
32°-34°	30.0
34°-36°	33.0
36°-38°	34.0
38°-40°	36.0

There is a wide fluctuation in the quantity of gasoline obtainable from the high gravity, 40° and above, crude oils; the yield of gasoline shown for the analyses available ranging from 40 to 70 per cent.

Information Circular 6114, U. S. Bureau of Mines, April, 1929, by Hopkins and Coons, Survey of Gravities of Domestic Crudes, gives the gravities for the crude oils of the United States and the gasoline content of 78 samples, representing 29.4 per cent of the total production in 1927. The average gravity was found to be 30.4°, weighted on the basis of production. Averaging the gasoline yield in the same way, an average of 23.4 per cent was obtained. "Since the average weighted gravity of the 78 samples is not far from the average for the entire country, it is probable that this computed figure of 23.4 per cent for gasoline content is close to the actual gasoline yield obtained in skimming operations. The yield of gasoline (natural gasoline deducted) by straightrun methods in 1927 was 24 per cent of the total gasoline run.

"In general, the higher the gravity the higher the gasoline yield. However, no definite rule can be laid down as to the increment to be expected in gasoline percentage recovery for each degree rise in gravity. This is because of differences in chemical composition. A crude of 30° may contain a higher percentage of gasoline than one of 35°. Another, and perhaps a better way of estimating the probable increase in gasoline recovery for a 1° rise in gravity would be through a study of the differential for each degree gravity posted by the major crude buyers over a long period of time."

The fact that there are no large number of crude oil analyses published in which the gasoline content is shown on the basis of some definite specification makes it difficult to draw reliable conclusions.

EXPANSION COEFFICIENTS CRACKED GASOLINE

When making very exact calculations involving corrections in volume for temperature variations, should different coefficients of expansion be used for straightrun gasoline, cracked gasoline and mixtures containing a large percentage of cracked gasoline?—M. A.

The recently published Research Paper 393 by Cragoe and Hill of the U. S. Bureau of Standards, directs attention to the fact that the blends containing cracked gasoline or benzol do not follow the same rates of expansion which have been established for straightrun gasoline and as published in Circular 154 of the bureau. The change in volume with change in temperature is somewhat larger for cracked gasoline and benzol than that indicated for the observed gravities of the Standard Petroleum Oil tables, shown in Circular 154.

The table following contains the recently determined coefficients and the constants given in Circular 154, for cracked gasolines from several typical crude oils.

COEFFICIENTS OF EXPANSION VARIOUS CRACKED GASOLINES

Crude source—	Gravity A.P.I.	Coefficient expan. per °F. R.P. 393	Cir. 154
Pennsylvania	68.08	0.00064	0.00062
Mid-Continent	59.33	.00063	.00061
Panhandle, Texas	56.54	.00062	.00060
Oklahoma	55.08	.00061	.00058
Texas	56.59	.00061	.00060
California	55.13	.00061	.00058
California	52.72	.00059	.00057
West Virginia	58.79	.00064	.00061
Mixture—Okla., Tex., La., Gulf Coast	58.36	.00063	.00061

The coefficients for the straightrun gasoline from crude oils of the same character are given.

COEFFICIENTS OF EXPANSION STRAIGHTRUN GASOLINES

Crude source—	Gravity A.P.I.	Coefficient expan. per °F. R.P. 393	Cir. 154
Pennsylvania	57.32	0.00060	0.00060
West Virginia	63.06	.00063	.00064
Kansas	56.54	.00060	.00060
Oklahoma	71.51	.00072	.00071
Texas	57.47	.00061	.00060
California	55.15	.00061	.00058
California	54.24	.00061	.00058

While the differences are very small, appearing in the fifth decimal place, they are of value when large volumes are involved. These revised coefficients of expansion for the cracked product need not be used when correcting volumes for ordinary work.

It may be of value to note that these investigators have found that corrections for thermal expansion of the present day fuels, including straightrun gasolines, cracked gasolines, and benzol blends, can be made more accurately, in general, from a knowledge of their distillation curves than from gravity determinations. The average volatility of the distillation test being the basis. The average volatility as used here is defined as the average temperatures at which 10, 50 and 90 per cent is evaporated. (Per cent evaporated is the per cent distilled plus evaporation loss.) A table is given showing the correction factors based on average volatility. The table following gives the factors for several temperatures, from Table 7 of the reference.

VOLUME CORRECTION FACTORS FOR GASOLINES

Observed °F.	Vol. at 60°F. occupied by unit vol. at observed temp. Aviation grade	Motor grade
	"Average volatility" 176°–230°	230°–284°
50	1.0068	1.0062
60	1.0000	1.0000
70	.9923	.9938
80	.9863	.9876
90	.9794	.9812
100	.9725	.9751
110	.9656	.9689

The factors given in this table are in the form of multipliers; that is, the observed volume of gasoline at the observed temperature, multiplied by the corresponding correction factor in the table, equals the volume at 60° F. For example, if the "average volatility," which corresponds approximately to the 50 per cent point on the distillation curve, of the gasoline is within the range 230° to 284° F., and the observed volume at 90° F., is 10,000 gallons, then the volume at 60° F. equals 10,000× 0.9813=9,813 gallons.

GRAVITY BASIS FOR PURCHASING CRUDE OIL

During the latter part of 1922 Baume gravity was adopted as the basis of grading crude petroleum. There were a number of articles published at this time setting forth the basis of contention in detail that the gravity should be used as the governing factor in grading crude petroleum. So far I have been unable to locate such an article, except those in your Journals of November 23 and 30, and December 7 and 14, 1922. I would appreciate it if you could furnish any information with reference to the adoption of gravity as the basis of grading crude petroleum.—G. L. T.

Prior to November 22, 1922, petroleum was purchased in the United States without specific reference to quality; however, differences in grade were recognized by the purchasers and there were many instances of premiums being paid above the posted price where oils of desirable quality were available. The market price was fixed by pools and districts. There were three prices posted in Oklahoma at that time, 75 cents a barrel for Healdton oil, Cement 85 cents, and $1.25 for all others. The total daily production for Oklahoma was 330,513 bbls., according to the table by James McIntyre, The Oil and Gas Journal, November 23, 1922, page 62. In this table grades from 29 gravity and under to 39 and above are listed. Nearly half, 150,050 bbls., was 37-38.9 gravity, which on the new schedule was priced at $1.60 in place of $1.25 a barrel. The announcement of the gravity schedule for the purchase of crude oil by the Prairie Oil & Gas Co., effective November 22, 1922, was made in this article. There were further references to the subject in The Oil and Gas Journal, November 30, 1922, pp. 11, 58, 62 and 74.

The gravity system mentioned made use of what is known as the A.P.I. modulus; this had been adopted as standard by the American Petroleum Institute, the U. S. Bureau of Mines and the U. S. Bureau of Standards, in December, 1921. Hydrometers had been in use in the industry for many years, some of which were scaled to indicate specific gravity and others were intended to be graduated for Baume degrees, for determining the weight of petroleum liquids. A full statement of this matter is to be found in Circular 154, National Standard Petroleum Tables, U. S. Bureau of Standards, May 29, 1924, (Government Printing Office, Washington, D. C., 30 cents). Investigation showed that the hydrometer in common use was scaled on a modulus of 141.5, and not 140 of the Baume instrument, the relation being illustrated for a liquid having a specific gravity of 0.70, where the Baume instrument for liquids lighter than water would indicate 70° and the A.P.I. hydrometer indicates 70.6°.

So far as the literature available indicates there were no articles published on the subject of grading petroleum on the basis of quality prior to the announcement of the Prairie Oil & Gas Co. and the articles above mentioned. It is generally recognized that gasoline is the most valued product of petroleum and since the largest yields are easily obtained from the lightest oils, they command the higher prices. More exact classifications would be possible if petroleum were graded on analyses but the necessary delays would make this impracticable. The A.P.I. gravity of a crude oil may usually be interpreted in terms of gasoline yield on refining by the topping method.

PERSONAL PARAGRAPHS

S. T. Sterrett with the Atlantic Oil Producing Company at Corsicana, Tex., is now at Wink, Tex.

* * *

P. W. Lambright, formerly with the Standard Oil Company, South America, in Argentina, is now located at Las Animas, Colo.

* * *

F. E. Holbrook, secretary of Imperial Oil, Ltd., and R. G. Finlay, also of the Sarnia office, are making their regular inspection tour of the company's branches in the Canadian West.

* * *

J. F. Johnston, formerly service station manager of the Associated Oil Company, has been appointed supervisor of sales training and education, with headquarters in the general offices at San Francisco.

* * *

Harry B. Burlow, formerly vice president in charge of oil country sales for Templeton-Kenly & Company of Chicago, is now manager of distributors' sales for Joyce-Cridland Company, Dayton, Ohio.

* * *

Rollin E. Ecke of the Wilshire Oil Company and James S. Wallace of the Richfield Oil Company, were elected president and first vice president, respectively, of the Petroleum Accountants Society of Los Angeles.

* * *

E. E. Upton, of the Iraq Petroleum Company, Ltd., has recently returned from Syria. Mr. Upton has been associated with the Iraq Petroleum Company since 1926, but has now resigned. Formerly he was with the Kern River Oilfields of California, in the company's fields in Trinidad.

* * *

H. C. Cornforth, chairman of the board of the Vacuum Oil Company, Ltd., Melbourne, Australia, was recently honored with a gold service badge in recognition of his 30 years' service with the company. The badge is studded with six pearls, each representing five years' service.

* * *

C. E. Dobbin of Denver, Colo., geologist in the conservation division of the U. S. Geological Survey, was in Casper, Wyo., on his way to Glendive, Mont., where he will check the mapping of the Clear Creek anticline. He will be joined later by R. M. Larsen of Midwest, geologist for the mineral leasing division.

* * *

W. S. Bradley, formerly superintendent at Humble and Goose Creek, Tex., for the Humble Oil & Refining Company, has been transferred to Conroe where he will be in charge of the company's operations in that new field. S. C. Moore of the Houston office has been chosen assistant superintendent; Harold Ward, petroleum engineer, and W. S. Ham, chief clerk and warehouseman.

* * *

R. B. Kelly, division petroleum engineer for the Pure Oil Company, Fort Worth, Tex., has been made assistant to B. S. SoRelle, manager of the Texas producing division of the company, and will have his office in Fort Worth. P. R. Smith, former assistant to Mr. SoRelle, has been transferred to West Texas where he will be in charge of the producing, land and scouting for the company. Headquarters will probably be San Angelo.

* * *

J. A. Van Wynen, vice president and general manager of Standard Oil Company of Pennsylvania, will retire on August 31, after 44 years of service. Beginning with the Jersey company as an apprentice in Brooklyn in 1888, he was two years later made chief clerk in the Jersey City office and in 1906 the company made him assistant manager of the Newark branch. In 1919 he succeeded C. E. Young as manager there. In 1926 he was called to New York as joint manager of the sales department and in 1927, with the new alignment of Standard Oil of New Jersey subsidiaries, he was made a director of that company.

I. F. Petty has moved from Big Spring, Tex., to McCamey, Tex.

* * *

C. R. Webb, of the Empire Gas & Fuel Company, has moved from Electra, Tex., to Gladewater, Tex.

* * *

M. C. Luckey, of the Houston Oil Company, formerly at San Antonio, Tex., is now at Houston, Tex.

Men of the Industry

Henry M. Dawes

Henry M. Dawes, president of the Pure Oil Company, is the youngest of four brothers, of whom Gen. Charles G. Dawes, formerly Vice President of the United States and later ambassador to England, is the oldest. Between them are Rufus C. Dawes, president of the World's Fair to be held in Chicago in 1933, and Beman G. Dawes, chairman of the board of the Pure Oil Company. Their father, Gen. R. R. Dawes, commanded the Iron Brigade in the Civil War and served two terms in Congress. Henry M. Dawes is a native of Marietta, Ohio, and following his graduation from Marietta College in 1896 he spent 10 years in the lumber business.

While he was in the lumber business, Mr. Dawes became president of the South Petroleum Company, which operated in the fields near Marietta. In 1907 he moved to Chicago to become secretary and treasurer of Dawes Brothers, Inc., owners and operators of public utilities throughout the country. In this connection he became further interested in the oil industry through operating natural gas and oil properties in Louisiana. May 1, 1923, President Harding offered Mr. Dawes appointment as Comptroller of the Currency, which he accepted and held until he resigned to become president of the Pure Oil Company.

Under Mr. Dawes' management the Pure Oil Company has made great strides, and it is today one of the largest of the so-called independent companies, with operations in 32 states and several foreign countries, with production in nine states, with seven refineries and with about 10,000 employes.

Mr. Dawes is active in the affairs of the American Petroleum Institute, of which he has been an officer and director for years. He was chairman of the committee which drafted the marketing code of ethics. Mr. Dawes has a beautiful home in Evanston, Ill. He does not have much time for recreation, but he loves a game of golf.

Campbell M. Hunter, O.B.E., is making a visit to Canada and the United States.

* * *

H. R. Cullen, independent operator, Houston, Tex., has been spending a vacation in New York and other points.

* * *

Ed Hunt, for some time past with the Texas Oil Company of Canada at Calgary, Alberta, has been transferred to the Denver, Colo., office of The Texas Company.

* * *

Harry C. Wiess, vice president and director of the Humble Oil & Refining Company, Houston, Tex., has returned from a pleasure trip to Baltimore and other eastern points.

* * *

John R. Suman, director of the Humble Oil & Refining Company, and W. W. Scott, chief petroleum engineer, Houston, Tex., are among a party which is inspecting properties in Venezuela.

* * *

C. G. (Curt) Hamill, Houston, Tex., drilling contractor and operator, accompanied by Mrs. Hamill, is making a vacation trip to Monterrey, Mexico, after visiting various points in the Rio Grande Valley.

* * *

Joseph S. Irwin, for some time active in geological work in Alberta as geologist for the Prairie Oil & Gas Company and more recently chief geologist for the Parco Oil Company, has opened an office in Calgary as consulting geologist.

* * *

A number of executives of Imperial Oil, Ltd. are making a tour of western Canada. The party includes President C. O. Stillman; John McNeil, director of marketing; Leo C. McCloskey, in charge of manufacturing; and Frank Prendergast, advertising manager.

* * *

Arthur F. Corwin, vice president of Standard Oil Company of New York, has been elected a director of Socony-Vacuum Corporation, succeeding Herbert Baker, retired. George V. Holton, general counsel for Vacuum Oil Company, was also elected to the board of Socony-Vacuum.

* * *

Judge Peter M. Speer, for many years general counsel for Standard Oil Company of New York, and who has held the same post with Socony-Vacuum Corporation since the merger, has retired. Judge Speer is a vice president of the Standard Oil Company of New York and a director of the Sterling National Bank & Trust Company.

* * *

W. G. Heltzel, general superintendent of Stanolind Pipe Line Company, headed a party of Tulsa officials who were accompanied on an inspection of Texas properties by O. H. Powell, superintendent in Texas, and J. J. Hill, superintendent of main line stations; T. L. Perryman, engineer; and Sam Trammel, district foreman of telephone and telegraph department, all of the Fort Worth, Tex., office. Accompanying Mr. Heltzel from Tulsa were J. B. Harshman, master mechanic; C. M. Scott, Jr., engineer; F. P. O'Conner, superintendent of the telephone and telegraph department, and L. E. Jennings of the safety department.

* * *

Henry L. Doherty, back in Wall Street again after a tedious convalescence and still under the necessity of guarding his health carefully, has found a way to overcome the discomforts of travel. Of an inventive turn of mind, he contrived to have built a motor trailer that represents the utmost in transportation efficiency. It is a high-ceilinged, graceful vehicle 20 feet long, pulled by a 12-cylinder automobile. The trailer has both heating and cooling facilities, a radio, miniature kitchen and complete office equipment. Accompanied by a secretary, he can conduct business as he goes about the city, or even through the crowded traffic of New York.

NATURAL GAS DEVELOPMENTS

OKLAHOMA OFFICIALS ON LONE STAR AUDIT

AUSTIN, Tex., June 27.—The following report to the Oklahoma Corporation Commission has been filed here:

"Pursuant to your instructions, Judge Ratliff and myself went to Fort Worth, Tex., and conferred with the engineers and auditors employed by the Texas Railroad Commission in the Lone Star investigation. Our purpose, generally, was to determine the scope and thoroughness of their investigation, their attitude and qualifications, and the advantages and disadvanages in employing the Texas engineers in valuing the Oklahoma property, and holding a joint hearing with the Texas Commission.

"It is our opinion that the engineers have made a thorough, conscientious and workmanlike job of valuing the Texas properties. They have placed a depreciated value of $36,756,343.45 on the Texas properties, including all overheads and intangibles. We estimate that if the Oklahoma properties were valued on the same basis, the total depreciated value, including overheads and intangibles, would be approximately $41,000,000. It will be noted that this is approximately $9,000,000 less than the figures suggested as a result of our investigation.

"The auditors for the Texas Commission have made a thorough study of the books and records of the Lone Star Co. The effectiveness of this study will depend largely upon the manner of presentation of exhibits and oral testimony.

"The ultimate results that may be achieved by a joint hearing with the Texas Commission depends largely upon certain factors which are subject to judicial determination by the commission. The major factors being (1) the rate of return to be allowed, (2) the amount to be allowed for depreciation and amortization, (3) the method used in forecasting future operations, and (4) the disposition of certain items such as donations, excessive salaries, management fee and nonrecurring charges.

"With the understanding that the primary purpose of our investigation was to determine the desirability and feasibility of employing the Texas engineers to make a valuation of the Oklahoma properties of the Lone Star Gas Co., we reiterate that, in our opinion, the engineering firm of Hawley, Freese & Nichols is a competent and reliable one.

(Signed) "P. R. REED, Auditor
"E. S. RATLIFF, Attorney"

Walker Protests

Renewing his protest against any move "which would wreck our record" against the Lone Star Gas Corp. and its subsidiary, the Community Natural Gas Co., Paul A. Walker, chairman of the Oklahoma Corporation Commission, said he will oppose letting an appraisal contract to a Texas company.

C. C. Childers, commissioner, said he has an agreement with E. R. Hughes, third member of the commission, to let the contract to Hawley, Freese & Nichols, Fort Worth, engineers, after July 1, when a new $50,000 investigating fund becomes available.

Childers outlined plans for a complete appraisal of Oklahoma properties of the Lone Star and the distributing company serving 26 state cities when he refused to join Walker in a 20 per cent rate reduction order. He said he believed the work can be done for $6,000 and within a month to six weeks.

Hughes also declined to sign the order, joining Childers in directing the state board of affairs to hold up the contract for printing it.

"I was opposed at the beginning to joining the Texas Railroad Commission in any joint survey in which the record would be made before a referee for that commission. I am opposed now to any move to wreck our record," said Walker, who presided over an intermittent investigation begun last September and ended February 27.

"When the Texas Commission called for bids for the appraisal down there, it advised E. B. Black, Kansas City engineer, who surveyed the Oklahoma Natural properties, that it would not employ anybody outside of Texas," Walker continued.

"During the investigation here, Harrison Smith, valuation engineer for the Lone Star, testified it would cost more than $100,000 to make a physical inventory alone. Now Childers says he believes the appraisal in Oklahoma can be made for $6,000."

Walker agreed with Childers that properties of the Lone Star are probably overvalued in the Oklahoma record, which fixes them at $47,820,642. He estimates reproduction costs at not more than $35,000,000 for the Lone Star and $1,250,112 for the Community Natural, for rate-making purposes.

"If we adopt the temporary order, reducing the average cost from $1.50 for the 1,000 feet to about 59 cents, where bills are paid promptly, we have a record which I believe will stand up in court. Then we can take steps for a more complete investigation," Walker added.

WEST TEXAS CITIES IN RATE CONFERENCE

ABILENE, Tex., June 27.—Call for a state-wide conference in Abilene June 29 of official delegations from all cities and towns served by the Community Natural Gas Co. and affiliated companies "for the purpose of making thorough investigation of the gas situation" was issued Thursday by a temporary organization formed here June 16.

Lee R. York, mayor of Abilene, was elected president of the organization formed last week following a West Texas protest meeting called after it was learned the Community Natural Gas Co. was planning to inaugurate a sliding domestic rate starting at $1.50 per 1,000 feet and working down to 45 cents net.

AUSTIN, Tex., June 27.—A temporary injunction restraining the Community Natural Gas Co. from putting into force proposed gas rate changes in approximately 90 Texas towns of less than 500 population was granted Saturday by Judge J. D. Moore of Travis County District Court.

ASK PARSONS FRANCHISE

TOPEKA, Kans., June 27.—The Kansas Public Service Commission has taken under consideration the application of the Ozark Pipe Line Co. of Parsons for a certificate of convenience and authority. Robert Stone told the commission he did not believe the commission could grant a certificate to this company because it would be competing with the Union Public Service Co., a Doherty distributing company.

The Ozark company has 246 wells in a local field. The Ozark company submitted a bid to supply the state hospital with gas and obtained the contract. The company proposes to furnish the gas at about 14 cents. In order to complete the contract the Ozark company must have a certificate of authority.

MIDLAND-TWIN STATES PROPERTIES TO BE SOLD

The properties of the Midland Natural Gas Co. and the Twin States Natural Gas Co. will be offered for sale at public auction in Charleston, W. Va., on July 2, pursuant to decrees of the Chancellor of the State of Delaware and of the Circuit Court of Kanawha County, West Virginia.

The sales for both companies will include oil and gas leases and leasehold estates in West Virginia, and all other properties.

In the case of Midland Natural Gas the property is to be offered in two lots, the first in parcels subdividing the leaseholds, etc., for which an aggregate minimum price of $87,373 is asked, the second lot to be offered at not less than $7,500, subject to a $1,251 claim filed by the State of Delaware for taxes, receivership proceedings and compensation of receivers and their solicitors in such amounts as shall be agreed upon or fixed by the Chancellor of the State of Delaware.

In the case of Twin States Natural Gas the property is to be offered in one lot for at least $114,567, in addition to which the purchaser will be required to pay a Delaware tax claim for $1,472, the costs of Delaware receivership proceedings, the compensation of receivers and solicitors as fixed by agreement or by order of the Chancellor of the State of Delaware, and also interest accrued up to the time of transfer of title upon a promissory note of the receivers to the Phoenix Securities Corp., upon which $27,525 now remains unpaid on account of principal.

W. H. LOCKE RELATES NATURAL GAS HISTORY

OIL CITY, Pa., June 27.—William H. Locke, vice president of the United Natural Gas Co. of this city, addressed the Kiwanis Club on "Progress of the Natural Gas Industry," giving an interesting history of natural gas. The first gas well was brought in in 1871 in Fredonia, N. Y., and three years later the fuel was used for lighting purposes in that place. Considerable prejudice developed against this innovation and not a few cities and towns passed ordinances against its use.

The first gas line was built into Titusville about 1871, being a 2-inch system about 5½ miles in length. The use of gas in industry is attested by the fact that there are now 20,000 different processes in which natural gas plays an important part.

Mr. Locke gave an interesting description of the great progress of natural gas in the home, contrasting the expensive and laborious methods of 40 or 50 years ago with the conveniences of today.

Guests included Otto Spieth, Cleveland, Ohio; Guy V. Woody, New York City, and J. G. Montgomery, Oil City.

CANADIAN GAS ASSOCIATION

CHATHAM, Ontario, June 25.—At the recent convention of the Canadian Gas Association at Winnipeg, Manitoba, the following officers were elected: President, Hugh McNair, Winnipeg; first vice president, J. G. Munroe, Montreal; second vice president, J. C. Dawson, Quebec; secretary-treasurer, G. W. Allan, Toronto; executive, J. S. Norris, Montreal; Arthur Hewitt, Toronto; J. M. H. Young, London; V. S. McIntyre, Kitchener; Col. D. R. Street, Ottawa; Maj. J. J. Humphreys, Montreal; H. S. Williams, Guelph; G. A. Jeffries, Toronto.

UNITED GAS REPORT BY PRESIDENT FEAGIN

Ascribing the decline in revenues of the United Gas Corp. to the shrinkage in consumption of natural gas resulting from the depression and to the reduction in rates brought about by competition with low-cost crude oil in the southwestern area served, Ralph B. Feagin, president of the company, told stockholders at their annual meeting of what has been accomplished in effecting operating economies.

The group, which comprised some 40 separate companies on July 19, 1930, when the corporation was formed, had been reduced to 13 by April 30 last, Mr. Feagin said. Numerous additional pipe lines had been completed and put into service in the last two years. While important economies had already been introduced, the company had accomplished only 20 per cent of all the economies possible, he said.

The estimated developed reserves in the company's territory were 3,000,000,000,000 feet of gas, or sufficient for 17 to 18 years of operation at the present rate of sales, with potential reserves in the area many times that figure. Of the developed reserves, more than 80 per cent is controlled by the United Gas system. The group controls 936 of the 1,250 gas wells in the southwestern area served, or more than 74 per cent, and in addition owns more than 70 per cent of the pipe lines.

Reporting that the Supreme Court had recently held that if a pipe line company and a distributing company were commonly controlled, it was the duty of the pipe line company to establish that the rates charged for the gas were just and reasonable, Mr. Feagin said that the United Gas system was so constituted that the local regulating authorities might have full access to all records necessary to establish the cost of producing, transmitting and distributing natural gas.

Mr. Feagin reported that in several instances cities and regions to which the company had assisted in bringing natural gas primarily to serve industries had initiated measures which would make the product, generally mixed with artificial gas, available to household users as well.

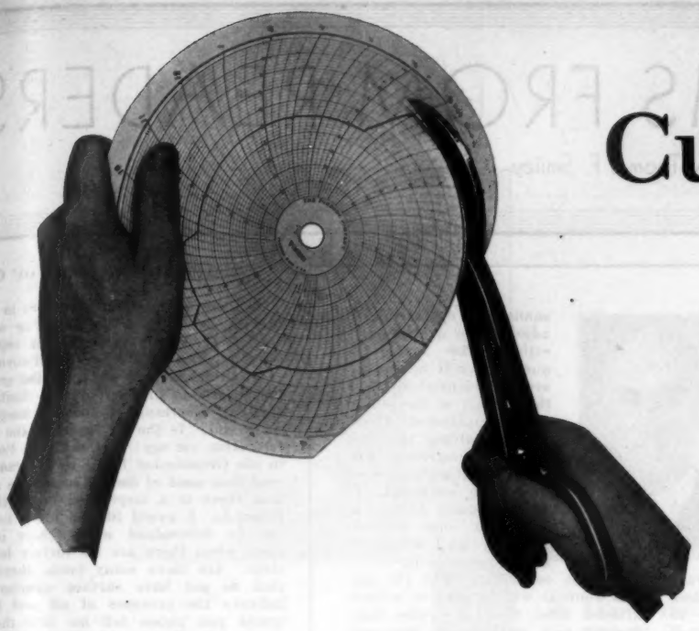
The statement of income for the 12 months ended on April 30 showed gross operating revenues of $23,527,218, against $27,976,734 in the preceding 12 months, with figures given irrespective of dates of acquisition of properties. Net revenues from operation were $13,282,275, against $16,284,825.

The operating revenues included $20,374,426 from natural gas operations, against $22,954,189 the year before; $2,113,625 from oil, against $2,836,953; $589,146 from natural gasoline, against $1,220,233; $420,195 from sulphur, against $628,635, and $29,862 miscellaneous revenue against $336,724.

SYRACUSE-OSWEGO LINE

WELLSBORO, Pa., June 27.—Construction of a gas transmission pipe line between Syracuse and Oswego, N. Y., is being pushed by the Niagara Hudson Power system. The towns of Baldwinsville, Fulton and Minetto are to be served by the line, which will connect gas plants and holders at Syracuse, Fulton and Oswego.

Through the recently completed storage gas holder of 6,000,000 feet capacity at Syracuse the new line will link the New York cities with the Tioga-Wayne natural gas fields if the project to pipe natural gas from this area to Syracuse is approved by the Public Service Commission.



Cut Your Own Cams!

REAL pressure regulation on gas distribution lines can be obtained with the new Foxboro automatic time Sensitizer. This instrument is a gas operated controller equipped with a time cam which changes the line pressure according to predetermined load requirements.

The new printed aluminum cam is of particular interest to gas men. This cam is merely a round aluminum disc on which standard Foxboro chart divisions are printed. The pressure schedules can be cut by the user with a pair of shears and a file.

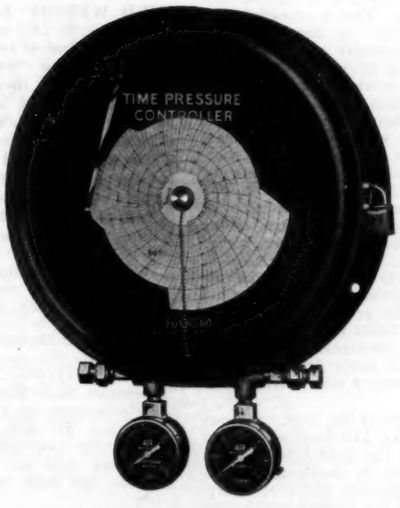
Where a wide variety of schedules are desired you can stock the calibrated discs and cut your own cams almost as easily as you can cut a paper chart.

Flexibility of Range—Economy of Operation—Accuracy and Dependability—these are the great distinctions of the Sensitizer.

The Sensitizer can be used with your present regulator. By the use of a diaphragm motor lever, it raises or lowers the regulator lever arm just as an operator would.

Gas companies use the Sensitizer for packing main lines at peak loads with remarkable success.

Write for Bulletin 594.



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FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

CONDITIONING THE WELL

I read with interest your answer to a question by E. R. K. concerning the water witch for locating water in an oil well. You state that the first step in using this device is to condition the well so as to create a fluid column whose electrical resistance is different from that of the natural well water. May I ask you how this conditioning is done? Under just what circumstances is the instrument used and what results are obtained? —R. R. T.

Any one of several methods may be used to condition the well, according to R. R. Robinson, Los Angeles, Calif., engineer, to whom this department is indebted for details concerning operation of the water witch. The column of fluid produced in the well may be either fresh water, mud, or salt water of a higher salt content than that produced by the well. Conditioning is accomplished by circulating with the desired fluid, running in the fluid outside the tubing while pumping off bottom, spotting the fluid with a bailer, running the fluid outside the tubing while swabbing, or by bailing off bottom while adding the conditioning fluid at the top.

Another method is to salt the well thoroughly by distributing a concentrated brine along the depth to be studied. A bailer is used fitted with a bean to restrict the discharge of brine. A special valve provides positive opening when bottom is reached but not before, and then as it is drawn at uniform speed to the top, brine flows at a uniform rate through the bean. This is repeated until the desired salinity is obtained. This method is of particular value when the entering water, as determined by sample, is very low in salt water content.

A condition often exists in California fields where a large quantity of water is pumped along with the oil. Its exact point of entrance is unknown. The problem is to find this point in order to determine whether it is feasible to exclude it.

In one case the well was washed with fresh water, circulating through tubing extending to bottom. The "water witch" then was run in, and the resistances at the various points were noted. An extremely salty section of the well fluid was shown by the greatly decreased resistance around 5,620 feet. Such a sudden decrease in resistance even on the initial run was a fairly definite indication of the entrance of salt water at this point.

As a check however (at least two runs are always made) 170 feet was bailed from the top of the fluid column, thus lowering the head in the well and allowing more formation water to enter. A second run of the instrument showed a well defined resistance peak at 5,625 feet, indicating this definitely as the point of water entrance. The rise in resistance was due to the movement of the salt water upward to take the place of that bailed off the top.

In another well an analysis of the well fluids showed the water to be fresh. The point of entrance might have been almost anywhere in the well. The operator suspected leakage around the plug. This well was conditioned by salting the fluid column with the bailer previously described. The curve recorded by the instrument showed a sudden increase in well fluid resistance at 1,499 feet. Other sudden increases were noted around 1,700 feet and 2,000 feet. Thirty cubic feet of fluid was bailed off the top. This reduced the pressure head in the well allowing more fluid to enter.

The second run of the instrument showed a marked change at the 1,499-foot point only, the other irregularities in the two curves being merely due to variations in the distribution of the salt in the original conditioning. The large increase in resistance at 1,499 feet showed, however, that additional fresh water had entered here. The curves showed that the water was entering through a casing leak and that this was the only point where water was entering the well.

MUD WEIGHT AND THICKNESS

In discussions of rotary mud the terms "thickness" and "weight" seem to be used as though they meant the same thing. It seems to me they should not be used that way, for I would say a thick mud is not necessarily heavier than a thin mud. I would be glad to have an opinion on this point, and I would like to have you tell me what method is used to gain the right thickness and weight of drilling mud for rotary use.—E. D. Y.

It is true that thickness and weight are confused in many discussions of rotary drilling mud. As a matter of fact the two words do not refer to the same quality at all. Hallan N. Marsh, production engineer for the General Petroleum Corp. of California, in a paper on "Properties and Treatment of Rotary Mud," comments on the loose use of the two terms. He says that weight (specific gravity) and thickness (consistency) of drilling mud are quite independent qualities and must be considered separately.

A mud may be heavy enough for all but the most extreme conditions and still be a little thicker than water. On the other hand, a mud so thick that it will not flow in a ditch may be as light in weight as water or lighter, thus permitting blowouts in wells in territory of moderate pressure. The specific gravity or weight per unit volume of a mud is a definite and important property. Sufficient weight is required so that the hydrostatic head of the mud in the hole will exceed the pressure in the formation being drilled through and thus prevent blowouts.

Weight of mud is commonly determined by weighing a definite quantity in a bucket suspended from a spring balance. This method is accurate enough for ordinary purposes if done with care, but it is likely to be so inaccurate as to be entirely misleading if the weighing is done with dirty, rusty or otherwise imperfect balances.

Specific gravity of mud is dependent of course upon the percentage of solids it contains and their specific gravity. It may be increased within moderate limits by merely adding more solids, but a point is reached soon beyond which further additions would make the mud too thick.

More solids may be added without making the mud excessively thick by employing certain chemicals which tend to hold down the viscosity, but this is not commonly done. If still more weight is required it is attained by adding some finely ground mineral of high specific gravity or by making a mud entirely of such material. Commercial mud-weighting materials on the market simplify this problem of obtaining a mud of correct weight and thickness.

WHY WAS IT CALLED THAT?

MYSTERY WELL

It was not an uncommon practice in the early days of the eastern oil fields to maintain secrecy concerning the progress and outcome of a wildcat well. If it was a good producer and nobody knew it besides the owners, it gave them an advantage in leasing nearby property. Sometimes the facts concerning a new well were withheld from oil scouts and others in order to permit the owners to make a cleanup on the oil exchange. A gusher could demoralize the market. A dry hole could send oil prices skyrocketing. Wells concerning which an effort was made to keep the public in ignorance were called "mystery wells."

One of these early mystery wells was the famous 646, which in 1882, started a new white sand development in the Cherry Grove district of Warren County, Pennsylvania. Armed guards were stationed to keep back the curious, and there was intense excitement. The well, which produced 2,500 bbls. daily at first, caused a panic on the oil exchange. It was pumping only five-eighths of a barrel nine months later.

SURFACE INDICATIONS OF OIL

Is there any surface structure in New Mexico to indicate the presence of oil there? I recently read that it cost the oil companies $18,000,000 to discover the Hobbs Pool in that state. Is the surface of the ground in New Mexico similar to that of Northeast Colorado, mostly a wash soil? Is the oil found in the same formation (or age) in the Hobbs Pool as in the Greasewood Dome in Colorado? I read that most of the oil companies agree that there is a large pool in Northeast Colorado. I would like to know how it can be determined where there is oil there when there are no surface indications. Are there many pools discovered that do not have surface structure to indicate the presence of oil and if so would you please tell me how the oil came to be discovered?—H. G. K.

First it is suggested that you read an article published in The Oil and Gas Journal of January 23, 1930, by John G. Bartram on "Possibilities in the Julesburg Basin in Eastern Wyoming and Northeastern Colorado." This tells much about the known geology of that region, but to discover oil or gas wells must be drilled. Surface work only outlines structures in which there may be oil or gas but there is no proven method of which this department has knowledge by which it is possible to determine whether these structures are saturated with hydrocarbons except to drill them.

The oil-bearing formations in the Hobbs Field are of Permian age, while the Dakota sand of Colorado and Wyoming is of Cretaceous age. The Dakota sands are therefore much younger than the limes from which the oil is recovered in Hobbs.

All oils are found in sedimentary formations, so of course Hobbs, N. Mex., and northeastern Colorado are similar in that respect, but many other conditions are necessary to bring about the formation of oil pools besides sedimentation.

An article in the March 3, 1932 issue of The Oil and Gas Journal describes methods of discovering hidden pools of oil and gas. The geological procedure is complicated. It is suggested that you obtain a copy of some high school geology and study it for the fundamentals of geology so that you may have some idea about general conditions. If you are interested in petroleum geology, Dorsey Hager's book, "Practical Oil Geology," published by McGraw-Hill Book Co., Inc., 239 West Thirty-ninth Street, New York, will be of value to you.

To avoid spending any large amount of money needlessly in oil prospecting it is always safest to consult with geologists who understand petroleum development.

It may interest you to know that about 22 geophysical parties have been in northeastern Colorado and western Nebraska within the past year going over that area for major companies. These companies are fully organized to explore for oil and gas and if they are not now in possession of title to the best looking areas it is simply because surface geology in that area does not indicate anything. For the outsider to expect to compete against these companies in this kind of work is hardly sensible because it is the oil companies' business to have complete organizations with trained men in charge of every department. If the rumor you heard about $18,000,000 having been spent to discover the Hobbs Field is based on facts it is safe to say it was spent by outsiders and not by the oil companies that follow the business regularly.

9 Epochal ADVANTAGES

1 2 3 4 5 6 7 8 9

- Allows drilling a full sized hole in oil sand, with 30-50% greater recovery of cores.
- Minimizes danger of drilling into bottom hole water. Oil sand need be penetrated only half to two-thirds as deep . . . to get the same amount of production. Gives wide margin of safety . . . prolongs profitable life of well.
- Provides up to 66⅔% more drainage surface per foot of sand.
- Eliminates the expense of hauling, making up and running small drill stem inside the casing to drill the cement plugs. Well is on production within a few hours after plugs have been removed.
- Eliminates disproportion of investment in upper part of hole.
- Allows in one continuous operation, the setting of the screen, thorough washing around the screen and cementing the casing.
- Permits setting larger insert screen if necessary at a later date.
- Easier to drill well deeper, as no cutting and fishing of screen is necessary. Also, straighter hole is secured.
- The space between the screen and sand is thoroughly clear of cavings, cuttings, and heavy muck before cement is placed. Metallic wash pipe is eliminated . . . therefore no fishing is necessary.

Two new operating practices—offered to the oil industry in the spirit of simplicity, economy and effectiveness—present nine epochal advantages. . . . .

9 SOUND REASONS WHY YOU OWE IT TO YOURSELF TO GET THIS folder!

. . . . Please send me copy of the pamphlet describing the Full-Hole Cementer and Howco Lining.

Name .....

Company .....

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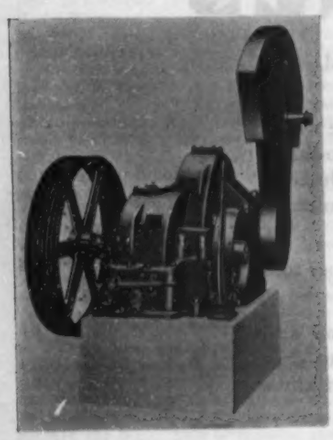
HALLIBURTON
OIL WELL CEMENTING CO.
Duncan, Oklahoma

NEW AND IMPROVED EQUIPMENT

"IDEAL" PUMPING GEAR ANNOUNCED BY NATIONAL

The National Supply Companies' new "Ideal" type F-3 pumping gear is a single reduction geared unit with an additional stage of V-belt reduction for driving a standard rig walking beam by means of a gas engine or electric motor. A sprocket is provided for driving a production hoist, and a clutch within the gear unit permits the hoist to be driven independently of the crankshaft during pulling operations.

Crankshaft, intermediate shaft, gears and pin clutch are mounted in a heavily ribbed and totally enclosed casing which



permits all working parts to operate in a bath of oil. Crankshaft and pinion-shaft are heat-treated alloy forgings, turned and ground, and are mounted on two Hyatt roller bearings each. These bearing capacities give a large factor of safety on the loads imposed, insuring the operator against bearing trouble and short bearing life.

Type F-3 gears are precision cut, wide-faced, full depth, involute spurs, produced by National's own Sykes gear generator. The gear ratio is conservatively low and the gearing is so designed as to give the unusually large capacity of 50 horsepower at 20 strokes per minute. Gears do not operate during pulling operations, being disconnected by means of a special type pin clutch easily operated by a lever on the rear of the frame.

The counterweighted crank provides a dynamic counterbalancing of the well load and acts not only as a counterweight but also as an energy-storing flywheel. Five weight pockets, into which the weights are securely bolted, permit varying the counterbalancing effect. Instead of being keyed directly to the crankshaft, the crank is bolted to a spider which, in turn, is keyed to the shaft. This construction has the advantage of allowing a change in the position of the crank to distribute wear on the main gear, and a standard crank may be substituted for cleaning out or drilling. Erection is also facilitated. The same unit, without the provision for driving a hoist, and known as type F-4, is also available. Descriptive literature may be had.

CRANE'S OIL BOOKLET READY

The Crane Co., 836 South Michigan Avenue, Chicago, has ready for distribution its 1932 catalog of oil industry appliances. This booklet of 168 pages, bound and illustrated, covers field, pipe line, refinery, natural gas and natural gasoline plant valves and fittings.

FOREIGN MATTER TAKEN FROM LINE BY STRAINER

The Fisher 260-Y strainer is designed to remove all dirt, scale or other foreign material, yet pass pipe line capacity on a low-pressure loss. Designed with large free area through the renewable screen, offering practically no more resistance to flow than a pipe bend and particularly constructed for use on pipe lines carrying water, air, gas, oil or steam.

A self-cleaning feature permits cleansing the screen by opening the blow-off valve. This Fre-flow strainer can be installed ahead of a regulator, pump, trap, valve, or any other working apparatus using a piped fluid. Pipe scale and dirt can cause shutdowns and repairs.

The Fre-flow strainers have screwed connections, and for ease of pipe fitting, the semisteel bodies have a hexagon shoulder at the inlet end. Regularly furnished with nickel semisteel, or cast-bronze bodies and with electric-weld lap seam, perforated bronze screens, having perforations of either one-sixty-fourth-inch for air and gas or one-thirty-second-inch for water and other liquids. Screens of other metals and perforations supplied when desired.

Fre-flow semisteel or bronze bodies are suitable for pressures up to 250 pounds and maximum temperature of 500° F. on noncorrosive liquids, gas, air or steam. Specially constructed strainers are available for corrosive fluids or other installations.

CANADA TESTING WELDED HIGH-PRESSURE VESSELS

The first shipment of high-pressure welded vessels to the Province of Quebec was made recently when two bubble towers and three separators were sent to the British-American Oil Co., Ltd., Montreal, by the refinery and gasoline plant division of Black, Sivalls & Bryson, Inc. The vessels were produced in the shop of the American Tank & Equipment Corp., Oklahoma City, Okla., subsidiary of Black, Sivalls & Bryson, Inc.

Formerly no welded pressure vessels of over 100 pounds per square inch working pressure (outside of the railway industry) were permitted in Canada. For years the authorities had seen vessels of riveted construction which proved satisfactory, and they were reluctant to take up anything new, such as welding.

In July of 1931 the Province of Quebec, by a special dispensation, allowed the British-American Oil Refineries to purchase these five vessels of welded construction. This was to be a test case. The construction of the vessels was to be carefully watched, and their behavior after installation carefully recorded. If these vessels proved satisfactory, the boiler code would be so revised as to permit welded vessels for high pressures under definite conditions of manufacture. If these vessels did not prove satisfactory, welded vessels would be excluded from the Dominion.

With this in mind, Joseph E. Verden, assistant chief examiner for the Board of Public Works of the Province of Quebec, went to the American shop in Oklahoma City and stayed there during the entire process of fabrication of these vessels.

It is believed that discussions soon will be undertaken in Canada for a revision of the code to include welding.

A three-story building at 547 Peachtree Street, N.E., Atlanta, Ga., has been leased by the southeastern division of the Russell Manufacturing Co., Middletown, Conn., for use as Rusco's branch in that city.

WELDER OFF WHEN NOT IN USE, SAVING POWER

The Lincoln power saver, a new electrode holder stand which automatically shuts down the welder one minute after the holder is placed on the stand and instantly starts the welder when the holder is removed, is announced by the Lincoln Electric Co. of Cleveland, Ohio, makers of "Linc-Weld" motors and "Stable Arc" welders.

It is asserted that the automatic start-and-stop feature of the new stand effects a decided saving in power consumption. It has been common practice to let the welder run continuously during working hours even though the operator may be welding only intermittently. By shutting the machine down when the operator is not welding, power is saved and the overall power factor of the plant raised.

Operation of the stand is simple. When the hook is depressed by the weight of the holder it activates a special timing device which, at the end of one minute, disconnects the welder from the power supply line. When the holder is removed from the hook the welder starts automatically.

The stand is of arc welded steel construction throughout. Its broad, heavy base provides ample rigidity, yet does not impair its portability. The holder hook can be raised or lowered on the upright member to suit the operator.

FOR BORING AND FACING WORK

A horizontal boring and facing machine, said to be the largest unit of its type ever built in this country, has been installed in the National Transit Pump & Machine Co. shops in Oil City, Pa. It will be used in perfecting heavy parts for the large type pumps and engines now being manufactured in the Oil City Shops, the size of the latest pipe line and refinery equipment requiring special machinery for its handling. William Sellers & Co., Inc., of Philadelphia designed and built the machine for the Transit. The general specifications of the machine are as follows: Boring bar 12-inch diameter with 24-foot stroke (in three steps), maximum length of continuous stroke, 96 inches; speeds of bar 1½ to 30 r.p.m.; feeds one-thirty-second to three-quarter inches per revolution of bar; maximum length of work accommodated, 22 feet; maximum diameter that can be faced, 96 inches; height from table to center of boring bar, 54 inches; size of work table, 23 feet long by 8 feet wide. The machine consists essentially of a long bed on which are two heads supporting the boring bar. One head is stationary and drives the bar. The other is movable longitudinally and serves as a support for the bar. Both heads carry facing arms with tool rests movable radially. In each head is a long sleeve keyed to the bar through which the bar slides when feeding or traversing.

WELDING ROD IN COILS

The Linde Air Products Co., 30 East Forty-second Street, New York, announces that both the Oxweld No. 14 drawn aluminum rod for welding sheet aluminum and the Oxweld No. 23 aluminum rod for welding cast and sheet aluminum and aluminum alloys are now available in the form of 10-pound coils of one-eighth inch diameter rod. Many users have found that it is advantageous to use aluminum welding rod in coil form for certain work. There are advantages in aluminum welding rod in coil form. In production work the amount of waste from short ends is reduced, and under many conditions the welding operator can handle tightly wrapped coil more easily than a 36-inch straight length.

POWER UNITS MADE FOR LOW HORSEPOWER RANGE

The Hercules Motors Corp. of Canton, Ohio, has announced the IX series of heavy-duty four-cylinder power units for the lower horsepower range, making Hercules power units available in a complete range of sizes from 6 to 175 horsepower. The IX series contains three models known as the IX, the IXA and the IXB. These power units have the same overall dimensions and hence are interchangeable in connection with any assembly, the only difference in specifications being in the bore of the engines and the parts affected thereby.

Present day operating conditions often demand sustained high speed and to meet this demand special attention has been given to valve cooling. The cylinder walls are water-jacketed not only around the combustion chamber but full length allowing the oil splash to come in contact with water-cooled cylinder walls when the piston is at top stroke, thus assuring low

oil temperatures under severest operating conditions. Crankcase and cylinder block are cast integrally assuring utmost rigidity and perfect alignment of crankshaft, pistons and cylinders and freedom from oil leaks. Ample bearings and forced oil feed to all main bearings and connecting rod bearings insure long life at these points. The oil pump is self-priming and the shaft and gears are case-hardened.

The IX series power units conform to the customary Hercules standard in that they are completely housed in heavy-gauge sheet metal and side panels designed not only to protect the engine from the weather but to present a neat and well arranged appearance as well. The supports and mounting consist of castings of rugged design to eliminate vibration and to withstand hard service.

The units are equipped with engines of the L-head type with 30-degree valve seats. The exhaust valve is a one-piece forging of silcrome steel and the port has a clear diameter of 1⅛ inches. The intake valve is a one-piece forging of chrome nickel steel and the port has a clear opening of 1¼ inches in diameter. The valves are operated by mushroom type tappets of steel with cast iron face.

Takeoffs available with this series of power units include clutch power takeoffs, solid power takeoffs, reduction gears of various ratio with or without clutch, right angle drive takeoffs, vertical drive takeoffs with or without reduction gearing, as well as reverse gear drives, straight or with reduction transmissions and stub shafts. The units can be equipped to operate on natural gas or kerosene as fuel.

The Caterpillar Tractor Co., Peoria, Ill., is sending out a folder giving specifications of the Caterpillar 7,500-G engine.

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for April

Runs

	Month bbls.	Dly. av. bbls.
Gulf P. L. Co.	1,489,648	49,655
Texas P. L. Co.	611,560	20,385
Magnolia P. L. Co.	1,076,368	35,879
Empire P. L. Co.	2,186,018	72,867
Coeden P. L. Co.	614,689	20,490
Stanolind P. L. Co.*	2,700,000	90,000
Oklahoma P. L. Co.	3,333,207	111,106
Other lines*	3,780,000	126,000
Total April	15,791,460	526,382
Total March	16,024,506	516,918
Difference	233,046	9,464

Shipments

Gulf P. L. Co.	1,473,992	49,133
Texas P. L. Co.	1,214,285	40,476
Magnolia P. L. Co.	1,428,042	47,601
Empire P. L. Co.	2,303,415	76,780
Coeden P. L. Co.	612,372	20,412
Stanolind P. L. Co.†	3,781,170	126,039
Oklahoma P. L. Co.	3,121,010	104,367
Other lines*	3,270,000	109,000
Total April	17,214,286	573,808
Total March	17,661,005	569,710
Difference	446,719	4.098

Stocks

Sinclair Prairie Crude Oil Marketing Co.*	35,297,000
Gulf P. L. and Gypsy Oil Co.	7,415,843
The Texas Company	3,678,880
Magnolia Petroleum Co.	8,182,199
Empire Pipe Line Co.	4,966,815
Mid-Continent Petroleum Co.	2,471,339
Stanolind Crude Oil Pur. Co.*	15,669,000
Oklahoma P. L. Co.	1,732,153
Carter Oil Co.	3,544,427
Other lines*	17,284,000
Total April	100,242,156
Total March	100,764,337
Difference	522,181

*Estimated. †Stanolind Pipe Line Co. shipments include Texas crude oil.

EASTERN PIPE LINE REPORT FOR MONTH OF MAY

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky, Illinois, Indiana and Michigan for April and May:

	April, 1932	May, 1932
Nat. Transit	147,723.99	151,951.45
S. W. Pa. P. L.	69,759.24	71,779.11
Eureka P. L.	280,564.96	276,906.64
Buckeye P. L. (Macksburg)	248,423.27	251,442.44
Buckeye P. L. (Cleveland)	11,868.52	12,377.90
Buckeye P. L. (Lima, etc.)	85,450.06	86,475.79
Indiana P. L.	2,736.17	2,672.22
N. Y. Transit	37,513.87	44,012.00
Tide Water P. L.	22,997.64	25,664.15
Pure Oil	380,142.42	423,749.02
Stoll Oil Ref.	22,902.63	58,053.00
Bradford Trans.	410,284.82	427,172.22
Total	1,720,467.58	1,832,255.95
Daily average	57,348.92	59,105.03

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for April and May:

	April, 1932	May, 1932
Nat. Transit	566,440.30	569,129.70
S. W. Pa. P. L.	447,522.55	465,620.47
Eureka P. L.	201,570.72	289,963.58
Buckeye P. L. (Macksburg)	272,180.88	231,855.64
Buckeye P. L. (Cleveland)	1,468.37	1,708.49
Buckeye P. L. (Lima, etc.)	1,480,881.88	1,381,245.31
Indiana P. L.	1,070,857.65	1,188,666.66
Southern P. L.	35,585.52	43,893.07
N. Y. Transit	191,240.50	192,967.42
Northern P. L.	158,940.28	167,202.66
Tide Water P. L.	480,908.25	412,438.33
Pure Oil	490,475.43	572,755.77
Bradford Trans.	439,477.28	452,206.39
Tuscarora Dev.	223,556.91	273,873.53
Total	6,061,106.52	6,243,527.02
Daily average	202,036.88	201,404.09

Gross Stocks

The gross stocks held by various pipe lines in the oil-producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of April and May:

	April, 1932	May, 1932
Nat. Transit	634,782.71	678,894.46
S. W. Pa. P. L.	453,340.11	518,480.70
Eureka P. L.	1,293,097.03	1,224,639.00
Buckeye P. L. (Macksburg)	285,565.79	277,198.32
Buckeye P. L. (Cleveland)	30,490.78	36,639.14
Buckeye P. L. (Lima, etc.)	3,082,716.14	3,160,170.66
Indiana P. L.	476,841.83	502,451.61
Southern P. L.	178,607.70	197,231.45
N. Y. Transit	184,159.11	167,583.00
Northern P. L.	247,444.39	216,814.96
Tide Water P. L.	940,092.95	832,349.04
Pure Oil	854,185.44	711,101.37
Tuscarora	9,256.63	9,033.34
Bradford Trans.	258,081.53	253,149.84
Total	8,908,661.14	8,835,726.89
Increase	106,468.60	
Decrease		72,934.25

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of April and May showing gross stocks of the above fields:

	April, 1932	May, 1932
Pennsylvania	2,978,189.27	3,082,290.24
Lima	540,408.74	527,816.96
Kentucky	9,997.41	9,997.41
Mid-Continent	4,555,299.50	4,552,128.56
Illinois	15,546 86	2,904.86
Michigan	779,319.36	660,588.86
Total	8,908,661.14	8,835,726.89

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1929	1930	1931	1932
Jan.	51,749	75,907	53,939	53,501
Feb.	51,833	79,256	55,163	55,498
Mar.	54,252	76,688	54,331	57,199
Apr.	58,444	84,536	54,914	57,348
May	59,902	70,546	53,344	59,105
June	58,833	75,430	54,110	.....
July	66,087	68,921	50,723	.....
Aug.	66,087	54,291	51,503	.....
Sept.	67,315	56,595	61,345	.....
Oct.	76,093	58,179	65,595	.....
Nov.	74,831	52,332	59,819	.....
Dec.	74,561	53,999	61,835	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1929	1930	1931	1932
Jan.	165,721	217,623	175,369	186,551
Feb.	159,387	224,355	183,494	169,856
Mar.	161,474	228,846	189,508	188,793
Apr.	169,737	241,845	191,450	202,036
May	184,281	248,383	199,247	201,404
June	185,404	234,401	221,155	.....
July	194,763	207,094	211,632	.....
Aug.	194,946	205,506	224,166	.....
Sept.	201,214	193,999	217,537	.....
Oct.	191,367	157,675	210,831	.....
Nov.	202,743	146,638	196,425	.....
Dec.	186,257	143,001	176,241	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines at the close of each month for the past three years:

	1930	1931	1932
Jan.	12,220,045	11,831,092	9,023,914
Feb.	12,991,561	11,506,489	8,974,350
Mar.	13,247,217	11,012,162	8,802,192
Apr.	13,233,961	11,044,481	8,908,661
May	13,052,953	10,728,239	8,835,726
June	13,396,855	9,903,349	.....
July	13,268,562	9,569,849	.....
Aug.	13,047,051	9,192,457	.....
Sept.	12,812,018	8,492,431	.....
Oct.	12,437,553	8,417,694	.....
Nov.	11,851,380	8,830,386	.....
Dec.	11,751,952	9,119,032	.....

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, June 1	549,815.19
Runs from wells	496,220.49
Other receipts	197,594.54
Regular deliveries	241,708.18
Other deliveries	406,130.78

The amount of Illinois oil run by the Tide Water Pipe Co. in May was 25,664.15 bbls. Deliveries were 38,151.70 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1932—	Runs	Deliveries
May	521,884.64	279,859.88
1931—		
Jan.	468,429.04	669,573.19
Feb.	429,284.54	461,262.85
Mar.	424,638.22	356,663.26
Apr.	421,814.98	282,532.65
May	433,231.80	332,513.95
June	510,805.78	320,258.13
July	520,009.38	289,219.05
Aug.	476,623.56	393,231.06
Sept.	492,183.83	323,012.50
Oct.	498,124.13	325,834.95
Nov.	470,302.63	281,258.48
Dec.	515,771.28	306,623.19
1932—		
Jan.	500,177.12	246,634.10
Feb.	482,561.50	186,010.30
Mar.	565,538.70	270,617.75
Apr.	461,920.92	285,817.98

Tide Water Pipe Co., Ltd., also delivered in May 104,554.14 bbls. Oklahoma oil.

Ashland Refining Co. reports well runs of 144,779.26 bbls. during May.

Average Daily Imports of Crude and Refined Oil at Principal United States Ports

Average barrels per day in 1931-32—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
June	30,067	10,833	111,767	27,000	20,833	200,500	2,300	5,500	2,167	1,333	12,300	212,800
July	26,387	11,226	104,678	29,323	21,773	193,387	6,903	7,419	4,194	.....	18,516	211,903
August	32,613	15,581	91,742	22,387	25,741	188,064	4,161	2,516	.....	3,162	9,839	197,903
September	37,067	7,267	106,867	20,099	22,967	184,267	4,833	8,333	.....	.....	13,166	197,433
October	53,710	14,484	100,774	26,742	40,645	236,355	6,097	6,871	2,097	1,838	16,903	253,258
November	48,033	28,800	51,567	28,600	12,967	170,067	3,933	10,833	3,033	1,367	19,166	189,233
December	30,258	16,806	121,867	31,645	34,258	234,774	1,968	4,355	.....	.....	6,323	231,097
1932—												
January	19,161	8,161	104,965	24,194	34,903	190,484	4,871	7,226	2,996	1,484	15,577	206,161
February	32,483	16,517	128,483	28,862	34,552	240,897	2,024	5,207	4,319	1,379	12,930	253,827
March	25,806	10,516	167,806	38,677	48,129	290,935	5,936	39,774	.....	1,516	47,226	338,161
April	37,167	13,467	158,233	38,733	39,400	292,000	6,767	44,600	2,167	3,333	54,867	346,867
May	31,161	2,065	170,226	50,774	14,935	269,161	903	710	4,194	1,516	7,323	276,484

Average Daily Receipts of California Crude and Refined Oil at Atlantic and Gulf Ports

Average barrels per day in 1931-32—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
June	4,267	.....	25,100	6,333	3,500	39,200	.....	.....	.....	.....	.....	39,200
July	6,774	1,194	24,612	11,065	9,903	53,548	.....	.....	.....	.....	1,335	54,903
August	3,452	.....	16,419	7,419	4,290	31,580	.....	.....	.....	.....	968	32,548
September	4,267	2,667	12,933	4,699	7,367	32,933	.....	.....	.....	.....	4,000	36,933
October	2,355	1,129	19,290	16,709	9,333	48,806	.....	.....	.....	.....	3,323	52,129
November	1,000	.....	22,800	11,567	.....	35,367	.....	.....	.....	.....	3,366	38,733
December	3,161	.....	22,484	5,839	6,032	40,516	.....	.....	.....	.....	7,742	48,258
1932—												
January	3,871	1,710	14,483	3,774	5,710	29,548	.....	.....	.....	.....	.....	29,548
February	3,069	.....	9,103	4,862	.....	17,034	.....	.....	.....	.....	2,483	19,517
March	1,516	.....	6,065	.....	.....	7,581	.....	.....	.....	.....	.....	7,581
April	3,500	.....	19,333	3,867	4,833	31,533	.....	.....	.....	.....	.....	31,533
May	2,161	.....	15,226	18,774	3,871	40,032	.....	.....	.....	.....	.....	40,032

Gross Production of Crude Oil in the United States for 12 Months

(In Barrels of 42 Gallons)

1931—		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
May:	Month	16,448,960	17,333,867	28,703,634	3,341,366	1,446,274	2,332,568	3,095,419	3,190,000	75,800,133
	Daily average	530,612	559,157	926,086	107,786	46,654	72,018	99,949	102,900	2,445,166
June:	Month	15,641,436	16,678,200	29,139,833	3,175,440	1,344,450	1,850,511	2,988,200	3,166,000	73,982,070
	Daily average	521,381	555,940	971,327	105,848	44,815	61,684	99,540	105,533	2,466,069
July:	Month	16,093,322	16,420,080	33,827,313	3,089,832	1,287,585	1,715,730	2,905,909	3,341,000	78,680,671
	Daily average	519,139	529,680	1,091,200	99,672	41,535	55,346	93,739	107,774	2,538,078
August:	Month	15,668,984	9,517,279	32,279,816	3,141,323	1,165,569	1,584,444	2,807,143	3,167,000	69,331,558
	Daily average	505,451	307,009	1,041,284	101,333	37,599	51,111	90,553	102,161	2,236,502
September:	Month	15,130,610	7,946,380	28,981,525	3,147,030	1,138,350	1,641,284	2,761,250	3,033,000	64,429,039
	Daily average	504,020	264,896	966,051	104,901	37,945	54,713	92,041	101,067	2,180,968
October:	Month	15,651,983	12,951,893	30,725,173	3,177,066	1,172,389	1,832,255	2,797,597	3,090,000	72,198,356
	Daily average	504,903	417,803	991,134	102,486	37,819	58,782	90,247	125,807	2,328,979
November:	Month	14,997,700	16,430,730	28,860,561	3,131,670	1,130,700	1,851,577	2,706,390	3,039,000	72,748,328
	Daily average	499,923	547,691	962,018	104,389	37,690	61,719	90,213	121,300	2,424,944
December:	Month	15,560,984	16,598,299	27,767,651	3,198,642	1,082,148	1,971,817	2,816,769	3,645,000	72,641,300
	Daily average	501,967	535,429	903,860	103,183	34,903	63,607	90,863	117,581	2,343,398
1932—										
January:	Month	15,532,141	13,664,149	26,410,318	3,170,587	1,101,616	1,792,398	2,444,164	3,566,000	67,681,373
	Daily average	501,037	440,779	851,946	102,277	35,536	57,819	78,844	115,032	2,183,270
February:	Month	14,616,862	11,806,190	23,858,375	2,838,839	1,008,562	1,617,087	2,420,224	3,294,000	61,460,139
	Daily average	504,030	407,110	822,703	97,891	34,778	55,762	83,456	113,586	2,119,315
March:	Month	15,575,915	12,997,618	26,162,647	3,042,929	1,062,897	1,703,145	2,617,392	3,553,000	66,715,543
	Daily average	502,449	419,278	843,956	98,159	34,287	54,942	84,432	114,613	2,152,114
April:	Month	15,524,000	12,718,020	25,855,442	2,974,080	1,048,620	1,858,957	2,525,040	3,684,000	66,188,159
	Daily average	517,000	423,934	861,848	99,136	34,954	61,965	84,168	122,800	2,206,272
Total 12 months		186,492,897	165,063,295	342,577,238	37,428,804	12,989,190	21,641,873	32,886,467	41,777,000	841,856,674

Summary of Operations in All Fields for Month of May

SUMMARY OF ALL FIELDS
WELLS COMPLETED

Field—	Comp.	Prod.	Dry	Gas
Eastern	124	483	16	23
Central Ohio	29	112	8	15
Lima	15	57	5	4
Kentucky	37	1,435	13	5
Indiana	13	332	6	2
Michigan	14	12,495	3	0
Illinois	2	22	0	0
Kansas	35	16,643	18	0
Oklahoma	89	63,624	29	6
N. Central Texas	122	3,734	52	10
West Texas	23	2,640	6	0
Texas Panhandle	9	915	1	2
E. Cen. and E. Tex.	601	44,152	14	1
E. Texas gas field	6	0	6	0
Southwest Texas	61	7,780	36	3
Gulf Coast	75	26,664	32	1
North Louisiana	20	3,281	5	3
Arkansas	3	0	3	0
Montana	3	1,350	1	0
Wyoming	2	203	0	0
Colorado	2	0	2	0
New Mexico	4	1,530	1	0
Mississippi	2	0	1	1
Total May	1,392	187,492	368	77
Total April	1,132	148,732	282	81
Difference	160	18,760	24	4

RIGS AND WELLS DRILLING

	Rigs	Drlg.	Ttl.
Eastern	48	161	209
Central Ohio	17	65	82
Lima	3	22	25
Kentucky	10	73	83
Tennessee	0	14	14
Indiana	3	63	66
Michigan	59	72	131
Illinois	1	20	21
Mississippi	1	16	17
Alabama	2	2	4
Missouri	0	1	1
Kansas	56	143	199
Oklahoma	113	322	435
N. Central Texas	44	154	198
West Texas	13	100	113
Texas Panhandle	12	53	65
E. Cen. and E. Texas	316	400	716
E. Texas gas field	3	28	31
Southwest Texas	31	119	150
Gulf Coast	7	116	123
North Louisiana	58	64	122
Arkansas	7	29	36
Montana	17	50	67
Wyoming	16	62	78
Colorado	10	67	77
New Mexico	10	49	59
Utah	1	19	20
Total May	858	2,284	3,142
Total April	807	2,134	2,941
Difference	51	150	201

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Creek	20	1,482	7	1
Carter	1	5	0	0
Garvin	1	0	1	0
Jefferson	1	0	1	0
Hughes	1	0	0	1
Pawnee	3	11	1	0
Pontotoc	4	136	2	0
McIntosh	1	0	1	0
McCurtain	1	0	1	0
Marshall	3	0	3	0
Muskogee	2	4	0	1
Osage	4	130	1	0
Oklahoma	17	60,378	0	0
Okfuskee	4	128	1	0
Okmulgee	10	70	5	2
Pottawatomie	1	240	0	0
Seminole	3	974	1	0
Stephens	5	236	2	0
Tulsa	3	5	2	0
Wagoner	2	0	2	0
Total May	87	63,543	31	6
Total April	79	55,137	32	7
Difference	8	8,406	1	1

Summary of Rigs and Wells Drilling

County—	Rigs	Drilling	Total
Atoka	0	2	2
Blaine	0	1	1
Alfalfa	0	1	1
Beckman	1	4	5
Coal	0	2	2
Comanche	0	3	3
Caddo	0	13	13
Carter	3	1	4
Cherokee	0	1	1
Cleveland	0	1	1
Creek	4	29	33
Custer	1	0	1
Garfield	1	3	4
Grant	1	0	1
Grady	0	2	2
Greer	0	2	2
Haskell	0	2	2
Hughes	5	17	22
Kiowa	0	2	2
Kay	0	6	6
Kingfisher	1	0	1
Lincoln	0	2	2
Latimer	0	2	2
Logan	0	2	2
Muskogee	2	11	13
McIntosh	0	1	1
Marshall	3	10	13
McCurtain	0	2	2
Noble	1	3	4
Okmulgee	3	14	17
Okfuskee	1	6	7
Osage	11	18	29
Pottawatomie	4	31	35
Pontotoc	3	11	14
Payne	2	3	5
Pittsburg	3	1	4
Pushmataha	0	2	2
Oklahoma	45	62	107
Roger Mills	1	1	2
Seminole	1	11	12
Stephens	10	11	21
Tillman	0	1	1
Texas	0	1	1
Waggoner	0	7	7
Wagoner	0	7	7
Washita	1	2	3
Woods	1	0	1
Woodward	1	0	1
Tulsa	3	17	20
Total May	113	322	435
Total April	89	284	369
Difference	24	38	66

WELLS COMPLETED
CARTER COUNTY

23-4s-3w Schermerhorn-Ardmore Oil Co. 3 5

CREEK COUNTY

20-19- 9 Gled Oil Co. 3 115
8-18- 7 Magnolia Pet. Co. 18 4
22-18-11 Billingslea 17 ..... dry
2-17-11 Kresne Bros. 3 ..... dry
27-14-10 Atlantic Oil Prod. Co. 1 140
21-19- 9 Barnsdall Oil Co. 1 ..... gas
2-19- 9 H. S. Burch 1 ..... dry
29-19- 9 Gled Oil Co. 4 300
15-19- 9 Bryan Pet. Co. 2 145
18-19- 9 Elliott Bros. 1 20
28-19- 9 Vensel et al 1 ..... dry
32-17-12 Willrough et al 1 ..... dry
32-17-12 Winemiller 1 ..... dry
29-19- 9 Gled Oil Co. 1 90
22-19- 9 Wallace 1 15
1-18- 8 Swift et al 2 181
4-18- 7 Oklahoma Power & Water Co. 13 ..... dry
17-17- 8 R. F. Moore 1 72
22-16- 8 Billingslea 7 250
32-17-12 Sherry et al 6 150
Completed 20
Production 1482
Dry 7
Gas 1,500,000

GARVIN COUNTY

24-2-2w Malarnee Oil Co. 1 ..... dry

PAWNEE COUNTY

2-20-8 Peter Adamson 1 4
26-20- 9 Hays et al 8 7
27-20- 9 Van Hess 1 ..... dry
Completed 3
Production 11
Dry 1

PONTOTOC COUNTY

33-5-5 I. T. I. O. Co. 1 20
21-5-6 Meyers et al 2 100
32-5-6 Delaney 1 ..... dry
20-5-6 Edna Marie ..... dry
Completed 4
Production 130
Dry 2

MARSHALL COUNTY

23-7s-6 Starrett et al 1 ..... dry
30-5s-6 Neff 4 ..... dry
14-7s-6 Everett 1 ..... dry
Completed 2
Dry 3

OKLAHOMA COUNTY

2-11-3w Slick et al 4 ..... [1]1,953
2-11-3w Slick et al 5 ..... [1]1,039
2-11-3w Slick et al 9 ..... [1]152
15-11-3w Eason Oil Co. 1 ..... [3]3,282
2-11-3w Slick et al 12 ..... [3]3,486
15-11-3w I.T.I.O. Co. 4 ..... [2]835
27-11-3w I.T.I.O. Co. 2 ..... [4]7,157
2-11-3w Slick et al 6 ..... [1]14,098
10-11-3w Phillips Pet. 1 ..... [5]295
15-11-3w I.T.I.O. 5 ..... [4]4,560
15-11-3w Phillips Pet. 2 ..... [1]1,359
22-11-3w McArthur 1 ..... [5]822
26-11-3w Phillips Pet. 1 ..... [5]205
35-11-3w I.T.I.O. 1 ..... [2]2,632
34-12-3w Grison Oil Co. 1 ..... [1]12,340
4-11-3w Capitol P. & R. Co. 1 ..... [5]162
22-11-3w Phillips Pet. Co. 1 ..... [4]410
Wells completed 17
Production 60,378

[1]Four hours. [2]Nine hours. [3]Three hours. [4]Eight hours. [5]Two hours. [6]Five hours.

OSAGE COUNTY

27-27-11 Peters Pet. Corp. 1 ..... dry
16-23-11 Corbin et al 7 15
21-23-11 Henerman et al 3 5
6-24- 8 Galt Brown 3 100
Wells completed 4
Production 130
Dry 1

McINTOSH COUNTY

22-12-14 J. H. Reboid 1 ..... dry

MUSKOGEE COUNTY

13-13-16 Braman Bros. 2 ..... gas
5-15-15 Babcock Bros. 7 4
Gas production 1,500,000

McCURTAIN COUNTY

7-6s-24 Ranchman et al ..... dry

POTTAWATOMIE COUNTY

13-6-2 Oils, Inc., 1 240

JEFFERSON COUNTY

36-3s-4w Monarch Pet. 1 ..... dry

OKMULGEE COUNTY

35-16-11 Kingsmith et al 1 35
13-16-13 Aggis Drlg. Co. 1 25
23-15-11 Le Beane 7 ..... dry
34-13-14 Jaunetta Oil Co. 11 ..... gas
14-14-14 Denton & Marshall 1 ..... dry
14-14-14 J. E. Wallace 5 ..... dry
23-14-14 Castleman 5 ..... dry
2-13-12 Vierson & Watters 1 ..... gas
15-13-14 F. C. Cusack 4 10
32-14-12 A. E. Basinger 1 ..... dry
Wells completed 10
Production 70
Dry 5
Gas production 11,000,000

HUGHES COUNTY

15-5-11 Nash and Redwine 3 ..... gas
Gas production 2,000,000

SEMINOLE COUNTY

19-7-3 Empire Oil & Ref. Co. 3 ..... *884
30-7-2 F. Coogan 1 ..... dry
17-9-6 Minnehoma Oil Co. 3 90
Wells completed 3
Production 974
Dry 1

*Fourteen hours.

STEPHENS COUNTY

35-2-9w R.C.R. Oil Co. 1 ..... dry
20-2-4w Vandersalice 1 ..... dry
2-2-8w Pace 4 20
22-2-7w Pace 2 200
2-2s-8w Pace 10 16
Wells completed 5
Production 236
Dry 2

TULSA COUNTY

30-20-14 French Pet. Co. 1 5
2-16-12 S. W. Anthony 7 ..... dry
3-16-12 S. W. Anthony 3 ..... dry
Wells completed 3
Production 5
Dry 2

WAGONER COUNTY

27-18-15 La Piere 1 ..... dry
33-16-16 Hamstead 1 ..... dry

OKFUSKEE COUNTY

14-10-11 Wells et al 2 ..... dry
8-12- 7 Cromwell Oil & Gas Co. 1 20
18-12-11 Champlin Ref. Co. et al 3 100
12-10-11 Misener et al 2 8
Wells completed 4
Production 128
Dry 1

Kansas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Cowley	3	216	1	0
Greenwood	10	447	8	0
Ellsworth	1	2,392	0	0
Douglass	1	0	1	0
McPherson	11	12,190	3	0
Morris	1	0	1	0
Osage	1	0	1	0
Reno	1	210	0	0
Stafford	2	140	1	0
Sedgwick	4	864	2	0
Total May	35	16,459	18	0
Total April	43	14,556	6	1
Difference	8	1,903	12	1

Summary of Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Butler	6	15	21
Barton	0	3	3
Cowley	5	12	17
Ellsworth	2	15	17
Edwards	0	1	1
Finney	0	1	1
Graham	1	0	1
Harvey	1	5	6
Harper	0	1	1
Kingman	0	3	3
Chautauqua	2	3	5
McPherson	19	32	51
Phillips	0	1	1
Pratt	1	0	1
Russell	1	1	2
Rush	1	3	4
Rawlins	0	1	1
Reno	1	8	9
Rice	2	6	8
Sedgwick	7	13	20
Saline	0	1	1
Sheridan	0	1	1
Stafford	0	1	1
Sumner	1	1	2
Greenwood	6	15	21
Total May	56	143	199
Total April	25	127	152
Difference	31	16	47

WELLS COMPLETED
COWLEY COUNTY

19-34-3 Whitaker et al 1 ..... dry
22-32-4 Murphy et al 1 170
22-34-2 Tighe 1 15
22-32-4 Hinkle 1 131
Wells completed 4
Production 316
Dry 1

ELLSWORTH COUNTY

1-17-10w Aylward et al 4 2392

RENO COUNTY

24-23-4w Olson Drilling Co. 1 210

GREENWOOD COUNTY

35-23-11 Gore and Phillips Pet. Co. 1 .. dry
28-23-11 Harwood Oil Co. 3 ..... dry
34-22-11 T. Palmer 1 ..... dry
14-22-12 Aikman & Baker 1 ..... dry
26-23-11 Amerada Pet. and Simmons 9 .. 17
33-23-11 Ward McGinnis 2 430
33-22-11 Central Pet. Co. 5 ..... dry
14-22-13 Aikman & Young 2 ..... dry
22-26- 9 Criswell 1 ..... dry
16-23-11 Hoover 1 ..... dry
Wells completed 18
Production 447
Dry 3

McPHERSON COUNTY

2-20-2w Shell Pet. Corp. 1 ..... dry
13-19-2w Carey and The Texas Co. 2 ... dry
25-19-2w Dickey 2 4506
25-19-2w Rosenthal 2 1394
35-19-2w Vernon et al 2 760
16-19-1w Twin Drilling Co. 1 ..... dry
20-19-1w United-Gypsy Oil Co. 1 1368
29-19-1w Madison-Shell Pet. Corp. 1 ... 100
29-19-1w Olson and Shell Pet. Corp. 1 .. 50
2-20-3w Mid-Kansas Oil & Gas Co. 1 .. 2950
24-19-2w Gypsy Oil Co. 1 1022
Wells completed 11
Production 12,190
Dry 3

SEDGWICK COUNTY

10-25-1 Continental Oil Co. 1 ..... dry
15-25-1 Continental Oil Co. 1 ..... dry
15-26-2 Shell Pet. Corp. 4 555
11-26-2 Shell Pet. Corp. 1 47
14-26-2 Gypsy Oil Co. 6 202
Wells completed 5
Production 804
Dry 2

STAFFORD COUNTY

1-23-12w Midwest Ref. Co. 11 140

OSAGE COUNTY

21-14-15 Briggs & Smith 1 ..... dry

East Texas Fields

Summary of Rigs and Wells Drilling

County—	Comp.	Prod.	Abd	Gas	Rig	Dig.	Ttl.
Anderson	0	0	0	0	2	0	2
Angelina	0	0	0	0	1	0	1
Bowie	0	0	0	0	1	2	3
Cherokee	3	160	1	0	2	7	9
Dallas	1	0	1	0	0	0	0
Delta	0	0	0	0	0	2	2
Ellis	1	0	1	0	3	2	5
Franklin	0	0	0	0	1	1	2
Gregg	317	28,005	1	0	178	154	332
Henderson	0	0	0	0	1	0	1
Hopkins	0	0	0	0	0	2	2
Jasper	1	0	1	0	0	1	1
Kaufman	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	2	2
Leon	0	0	0	0	1	1	2
Morris	0	0	0	0	0	3	3
Nacogdoches	0	0	0	0	1	2	3
Polk	0	0	0	0	2	2	4
Red River	0	0	0	0	0	2	2
Robertson	0	0	0	0	0	2	2
Rockwall	0	0	0	0	0	1	1
Rusk	192	10,790	6	1	85	138	223
Smith	47	2,801	1	0	12	35	47
Titus	0	0	0	0	0	1	1
San Augustine	1	0	1	0	0	0	0
Upshur	31	1,719	0	0	22	30	52
Van Zandt	7	717	1	0	2	8	10
Wood	0	0	0	0	1	1	2
Total May	601	44,192	14	1	316	400	716
Total April	499	34,074	26	1	333	374	707
Difference	112	10,118	12	0	17	26	9

Note—Initial production taken on various chokes.

WELLS COMPLETED
CHEROKEE COUNTY

Mid-Kansas Oil & Gas Co.'s No. 9 M. M. Cross, by heads 10
Harper & Perkins' No. 1 J. T. Lowery abd
Mid-Kansas Oil & Gas Co.'s No. 1 H. D. Kelley, through 2½-in. tubing .. 150
Wells completed 3
Initial production 160
Abandoned 1

DALLAS COUNTY

Long Creek Development Co.'s No. 1 T. J. Lupton ..... abd

ELLIS COUNTY

Carl Brooks' No. 1 C. W. Golliday ..... abd

GREGG COUNTY

Amerada Pet. Co.'s No. 6 Hearne, through 1-in. tubing choke 63
Amerada Pet. Co.'s No. 6 Killingsworth, through tubing choke 121
Arkansas Fuel Oil Co.'s No. 1-B S. G. Smith, through 1-in. tubing choke (25 min.) 48
Arkansas Fuel Oil Co.'s No. 2-B S. G. Smith, through various chokes, per day 67
Atlantic Oil & Prod. Co.'s No. 3 S. S. Barton, through tapered tubing 21
Atlantic Oil & Prod. Co.'s No. 6-A Burnside, through tapered tubing ... 33
Atlantic and Wadley's No. 4 Turner estate, through tapered tubing 31
Big Indian Oil Co.'s No. 1 W. R. Nicholsong, through open tubing (21 min.) 45
Black-Stroube and Collins' No. 3 J. Spurrier, through open tubing 135
Burnett et al's No. 1 Claude Lee, through ¾-in. tubing choke (¼ hr.) 33
Continental Oil Co.'s No. 4 B. C. Todd, through open tubing 260
Cox & Hammon's No. 6 Fee, through open tubing 140
Cranfill & Reynolds' No. 2 F. T. Rembert, through various chokes 67

Empire Gas & Fuel Oil Co.'s No. 4 J. Bauder, through open tubing (¼ hr.) 25
Empire Gas & Fuel Oil Co.'s No. 7 L. A. Jeter, through open tubing (¼ hr.) 37
Fain & McGaha's No. 4 A. Tooke, through 1-in. tubing choke 120
Faith Oil Co.'s No. 3 B. B. Fenton, through 1-in. tubing choke (¼ hr.) 30
Faith Oil Co.'s No. 3 J. C. Barrett, through tubing choke (5 min.) 5
Fleming & Kimbell's No. 3 J. Barnes, through various chokes (24 hrs.) ... 67
Galves Oil Co.'s No. 4 W. W. Holland, through various chokes 67
Gulf Prod. Co.'s No. 2 A. V. Bacle, through ⅝-in. tubing choke 70
H.B.&W. Oil Co.'s No. 2 J. C. Grey, through open tubing (½ hr.) 32
Heyser & Heard's No. 3 Guy & Hindman, through various chokes 67
F. C. Jones et al's No. 1 J. M. Christian, through various chokes 67
Larry & Hall's No. 1 J. H. Alexander, through open tubing 55
Lucey Pet. Corp.'s No. 3 J. H. McHaney, through various chokes 67
Magnolia Pet. Co.'s No. 7 R. B. White, through open tubing 208
Rosser & Pendleton's No. 2 J. T. Hopkins, through various chokes 67
Selby & Lewis' No. 7 L. C. Ingram, through 1-in. tubing choke (¼ hr.) 48
Shasta Oil Co.'s No. 5-A Campbell, through various chokes 67
Shell Pet. Corp.'s No. 5 J. Moore, through tapered tubing 30
Silver Star Oil Co.'s No. 1 Finley & Thomas, through tubing choke (⅛ hr.) 67
Silver Star Oil Co.'s No. 1 Pine Hill School, through various chokes 67
Sinclair-Prairie Oil Co.'s No. 31 Moncrief, through open tubing (¼ hr.).. 48
H. R. Smith, Inc.'s No. 5 W. H. Baukknight, through 1¼-in. tubing choke.. 180
Stanolind Oil & Gas Co.'s No. 3 Cox & Hammon, through open tubing 188
Stanolind Oil & Gas Co.'s No. 4 C. M. B. Harley, through open tubing (25 min.) 67
Stanolind and Simms Oil Co.'s No. 2 Percy McGeorge, through open tubing 78
Stanolind et al's No. 4 H. Key, through open tubing 189
Stroube & Stroube's No. 1 Dollie Key, through tubing choke (½ hr.) 67
Yount Lee Oil Co.'s No. 3-C Maude Smith, through 11/16-in. tubing choke 79
Producers Investment Co.'s No. 1 W. N. Crim, through open tubing 50
Atlantic-Byrd Frost's No. 4 Smith, through tapered tubing 22
Ray Oil Corp.'s No. 3 Smith, through 1-in. tubing on 2-in. tubing (½ hr.).... 40
Choctaw Oil Co.'s No. 2 Elder, through ⅝-in. tubing choke (¼ hr.) 20
Wainwright-West, Ltd.'s No. 1 J. Martin, through open tubing 100
Bessie DeMayo No. 3 Benson, through 1-in. tubing choke 120
Gulf Prod. Co.'s No. 8 Alexandria, through ⅝-in. tubing choke 90
Gulf Prod. Co.'s No. 19 Kilburn estate, through ⅝-in. tubing 85
Gulf Prod. Co.'s No. 7 Holt, through ⅝-in. tubing choke 100
Gulf Prod. Co.'s No. 3 A. A. King, through ⅝-in. tubing choke 75
Gulf Prod. Co.'s No. 12 Spear, through ⅝-in. tubing choke 90
Gulf Prod. Co.'s No. 15 A. Spear, through ⅝-in. tubing choke 82
Gulf Prod. Co.'s No. 2 E. L. Walker, through ⅝-in. tubing choke 70
Hasting et al's No. 1 Wallace, through open tubing (½ hr.) 60
Henry Oil Co.'s No. 3 Ben Laird, through ⅝-in. tubing choke (12 min.) 20
Iowa Payne's No. 1 Jim Gray, through ⅝-in. tubing choke 115
Jones & O'Brien's No. 4 Hughey-Ross, through open tubing (⅝ hr.) 20
Dale Sneed's No. 1 J. F. Reynolds, through ⅝-in. tubing choke (½ hr.) 20
Shell Pet. Corp.'s No. 1 Donnie Carr, through tapered tubing (¼ hr.) 7
Sinclair-Prairie Oil Co.'s No. 15 A. A. King, through open tubing (¼ hr.).. 60
Sinclair-Prairie Oil Co.'s No. 2-B A. A. King, through open tubing (¼ hr.).. 50
Sun Oil Co.'s No. 2 William Penecost, through tapered tubing 51
The Texas Company's No. 4 R. B. Walls, through open tubing 162
Weaver-Crim Corp.'s No. 5 Laird, through pinched tubing 62
Arkansas Fuel Oil Co.'s No. 2 Tennery, through 1-in. tubing choke (¼ hr.). 35
Atlantic Oil & Prod. Co.'s No. 5-B Burnside, through tapered tubing.... 16
Atlantic and Wadley's No. 5 Turner estate, through tapered tubing 22
Atlantic Oil & Prod. Co.'s No. 1 T. B. Harris, through tapered tubing 16
Atlantic Oil & Prod. Co.'s No. 9 Moyer, through tapered tubing 22
Atlantic and Sun Oil Co.'s No. 3 William Anderson, through tapered tubing 22
Cal-Pet. Corp.'s No. 5 Clements, through ⅝-in. tubing choke (¼ hr.) 20
Clark & Cowden's No. 3 J. M. Christian, through open tubing (¼ hr.) 40
Columbia Oil & Gas Co.'s No. 2 C. J. Dollahite, through various chokes, per day 62
Corley & Blair's No. 3 W. E. Bumpass, through 1-in. tubing choke (25 min.) 61
Cox & Hammon's No. 10 L. A. Rodden, through open tubing (¼ hr.) 50
Dolores Oil Corp.'s No. 2 Mattox, through various chokes 67
Devonian Oil Co.'s No. 7 L. C. Ingram, through ⅝-in. tubing choke 120
East Texas Finance Co.'s No. 1 Finley & Thomas, through open tubing, per day 62
Humble Oil & Refining Co.'s No. 7 T. M. Armstrong, through ⅝-in. tubing choke 119
Gulf Prod. Co.'s No. 7 S. C. Fishburn, through ⅝-in. tubing choke 180
Gulf Prod. Co.'s No. 7 Lacy Snider, through ⅝-in. tubing choke 90
Empire Gas & Fuel Oil Co.'s No. 5 A. Green, through open tubing (¼ hr.). 40
F.H.E. Oil Co.'s No. 2 J. M. Christian, through 1-in. tubing choke (⅛ hr.).. 26
Humble Oil & Ref. Co.'s No. 8 T. B. Harris, through ⅝-in. tubing choke (⅛ hr.) 15
Humble Oil & Ref. Co.'s No. 5 Killingsworth, through ⅝-in. tubing choke (⅛ hr.) 24
Humble Oil & Ref. Co.'s No. 3 J. H. Sheppard, through ⅝-in. tubing choke 92
Kewanee Oil & Gas Co.'s No. 9 T.&P. R.R., through various chokes 62
Magnolia Pet. Co.'s No. 8 C. E. Davis, through open tubing 222
Magnolia Pet. Co.'s No. 3 F. M. Fonville, through open tubing 252
Magnolia Pet. Co.'s No. 4 H. B. Zeigler, through open tubing 208
Magnolia Petroleum Co.'s No. 5 H. B. Zeigler, through open tubing 168
Midas Oil Co.'s No. 2 A. V. Bacle, through various chokes, per day 62
W. A. McCommas' No. 1 Finley & Thomas, through open tubing (¼ hr.) 55
Navarro Oil Co.'s No. 5 E. L. Walker, through ⅝-in. tubing choke (⅛ hr.). 47
Selby Oil & Gas Co.'s No. 2-C Snavely heirs, through 1-in. tubing choke (35 min.) 60
Shano Oil Co.'s No. 3 J. T. Hopkins, through 1-in. tubing choke (¼ hr.). 30
Shell Petroleum Corp.'s No. 9 G. W. Richey, through tapered tubing (¼ hr.) 15
Simms & Buttram's No. 1 W. R. Nicholson ..... no gauge
Simms and Stanolind Oil & Gas Co.'s No. 7-B Flewellen, through various chokes 62
Simms and Stanolind Oil & Gas Co.'s No. 4 A. J. Tuttle, through open tubing (¼ hr.) 30
Sinclair-Prairie Oil Co.'s No. 2 M. Lawson, through open tubing (¼ hr.)... 67
Stanolind Oil & Gas Co.'s No. 5 Cox & Hammon, through open tubing (¼ hr.) 58
Stanolind and Simms Oil Co.'s No. 5 Fonville, through 1-in. tubing choke. 34
Stanolind and Simms Oil Co.'s No. 5-A J. J. Flewellen, through open tubing (½ hr.) 88
Stroube & Stroube's No. 1 Anderson et al, through tapered tubing 25
Sun Oil Co.'s No. 6 J. C. McKinley, through open tubing 100
Sun Oil Co.'s No. 3 E. C. Schoultz, through tapered tubing 52
Sun Oil Co.'s No. 2-B A. Tooke, through open tubing 54
Sutton & Hawkins' No. 5 J. A. Whittaker, through various chokes, per day 67
J. A. Woods et al's No. 1 J. H. Sheppard, through various chokes 67
Yount Lee Oil Co.'s No. 3 Smith, through 11/16-in. tubing choke 79
Yount Lee Oil Co.'s No. 3 J. M. Tuttle, through 11/16-in. tubing choke 89
Amerada Pet. Co.'s No. 2 C. Jenkins, through 1-in. tubing choke 123
Arkansas Drlg. Co.'s No. 1 Adkins heirs, through ⅝-in. tubing choke 65
Atlantic Oil & Production Co.'s No. 3 Clayton heirs, through tapered tubing 22
Byrd-Frost, Inc.'s No. 8 Hughey, through pinched tubing, per day 61
Sid Latham, receiver's No. 1 J. C. Clayborn, through open tubing (¼ hr.).. 40
Cranfill & Reynolds' No. 3 J. M. Blackman, through ⅝-in. tubing 125
Doss & Joned No. 1 E. Hagler, through ⅝-in. tubing choke 100
Empire Gas & Fuel Oil Co.'s No. 2 A. Lockhart, through 2-in. tubing choke (¼ hr.) 30
Gulf Production Co.'s No. 4 C. Brown, through ⅝-in. tubing choke 82
Gulf Production Co.'s No. 3 William Clayton, through ⅝-in. tubing choke 90
Gulf Production Co.'s No. 2 C. Strong, through ⅝-in. tubing choke 70
T. D. Humphrey's No. 5 A. Spear, through ⅝-in. tubing choke (⅛ hr.). 60
Invincible Oil Co.'s No. 2 Weiss, through open tubing (⅛ hr.) 60
Liner, Inc.'s No. 2 Clayton, through 1-in. tubing choke (⅛ hr.) 75
Massey & McGinn's No. 1 Elder, through 1½-in. tubing choke (10 min.) 8
Magnolia Pet. Co.'s No. 2 M. T. Cole, through 1-in. tubing choke 140
Magnolia Pet. Co.'s No. 5 A. Hicks, through 1-in. tubing choke 168
C. L. McHeney's No. 1 Mount Culver Church, through pinched tubing, per day 61
Mission Oil Co.'s No. 2 Clayton, through pinched tubing, per day 61
F. W. O'Byrne's No. 2 Daniels, through open tubing 50
R. Dudney et al's No. 1 Clayton, through 1-in. tubing choke (40 min.) 30
Pet. Finance Corp.'s No. 5 W. D. Lacy, through ⅝-in. tubing choke 120
Republic Production Co.'s No. 1 Clayton, through ⅝-in. tubing choke (⅛ hr.) 70
Shell Pet. Corp.'s No. 1 H. T. Elder and Sons, through tapered tubing (½ hr.) 17
Shell Pet. Corp.'s No. 3 B. F. Laird, through tapered tubing (¼ hr.)..... 11
Shell Pet. Corp.'s No. 7 Willoughby, through tapered tubing (¼ hr.)..... 3
Sinclair-Prairie Oil Co.'s No. 18 M. T. Cole, through open tubing 42
Sinclair-Prairie Oil Co.'s No. 19 M. T. Cole, through open tubing (¼ hr.). 30
Sinclair-Prairie Oil Co.'s No. 9-B A. A. King, through open tubing (13 min.). 60
Sinclair-Prairie Oil Co.'s No. 12-B A. A. King, through open tubing 60
Sinclair-Prairie Oil Co.'s No. 7 J. E. Luther, through open tubing (2 hrs.) 60
Solar Exploration Co.'s No. 1 J. S. and F. Elder, through tapered tubing.... 12
Sun Oil Co.'s No. 1 M. Strong, through tubing 90
Tidal Oil Co.'s No. 5 T. Bell, through open tubing 13
Tidal Oil Co.'s No. 6 King, through pinched tubing, per day 61
Tidal Oil Co.'s No. 4 C. C. Strong, through open tubing 144
Trapshooter Riley's No. 4 Eddie Mitchell, through pinched tubing, per day..... 61
Vierson et al's No. 2 Muckelroy, through 1-in. tubing on 2-in. tubing choke... 110
Abernathy & Kirkpatrick's No. 1-B R. M. Woods, through various chokes... 61
Alemeta Oil Corp.'s No. 2 Doby, through open tubing 100
Amerada Pet. Corp.'s No. 6 Bumpass, through ⅝-in. tubing choke 75
Amerada Pet. Corp.'s No. 4 Continental, through ⅝-in. tubing choke 72
Amerada Pet. Corp.'s No. 4 Allen Tooke, through 1-in. tubing choke (⅛ hr.).. 33
Amerada Pet. Corp.'s No. 6 J. M. Tuttle, through ⅝-in. tubing choke (⅛ hr.).. 18
Atlantic and Wadley's No. 3 J. Bender, through tapered tubing 22
Atlantic Oil & Production Co.'s No. 3 T. B. Harris, through tapered tubing.... 22
Atlantic Oil & Production Co.'s No. 6 J. M. Tuttle, through tapered tubing... 22
Atlantic Oil & Production Co.'s No. 7 J. Wilson, through tapered tubing 21
Barnsdall Oil Co.'s No. 6 McGrede, through various chokes, per day 61
Bass & Dillard's No. 1 S. Christian, through various chokes, per day ... 61
Beard et al's No. 2 M. F. Farrell, through various chokes 61
Jim Cloud, Inc.'s No. 2 B. C. Christian, through open tubing (½ hr.) 61
Deep Rock Oil Corp.'s No. 4 H. Pritchard, through open tubing (⅛ hr.)... 29
Empire Gas & Fuel Oil Co.'s No. 5 J. Bender, through open tubing (¼ hr.) 42
Empire Gas & Fuel Oil Co.'s No. 8 A. Jeter, through open tubing (¼ hr.) 27
Empire Gas & Fuel Oil Co.'s No. 3 J. L. Spurrier, through open tubing (¼ hr.) 42
Fain & McGaha's No. 3 A. Tooke, through various chokes, per day 61
Fritts et al's No. 2 Emmett E. Anderson, through various chokes 61
M. E. Gaskill et al's No. 3 Sam Key, through ⅝-in. tubing choke (¼ hr.). 18
Gilcrease Oil Co.'s No. 1-B A. Tooke, through various chokes 61
Gulf Production Co.'s No. 9 J. C. Judge, through ⅝-in. tubing choke 90
Gulf Production Co.'s No. 3 F. M. Fonville, through ⅝-in. tubing choke.... 72
D. L. Hoffman's No. 2 W. M. Kellum, through ⅝-in. tubing choke (⅛ hr.). 45
Humble Oil & Ref. Co.'s No. 6 H. M. Lawrence, through ⅝-in. tubing choke 73
Humble Oil & Ref. Co.'s No. 8 W. R. Hughes, through ⅝-in. tubing choke 89
Lucey Pet. Corp.'s No. 3 R. Christian, through 1-in. tubing choke 127
Magnolia Pet. Co.'s No. 1 Beaver-Goolsby, through open tubing 128
Magnolia Pet. Co.'s No. 1 E. Brawley, through 2-in. tubing 152
Magnolia Pet. Co.'s No. 2 Clem Jones, through 2-in. tubing choke 176
Magnolia Pet. Co.'s No. 5 H. L. Foster, through open tubing 136
Magnolia Pet. Co.'s No. 7 B. E. Rodden, through open tubing 176
J. H. Massey et al's No. 3 J. W. Orr, through various chokes 67
Miller & Lacy's No. 1 W. R. Nicholson, through various chokes 61
O. G. Murphy's No. 2 Doby, through various chokes 61
Pilot Oil Co.'s No. 2 Magrill, through 1-in. tubing choke (½ hr.) 31
Rosser & Pendleton's No. 4 A. Christian, through 2½-in. tubing choke (33 min.) 33
Rosser & Pendleton's No. 3-A W. R. Nicholson, through 2-in. tubing (½ hr.) 61
Selby & Lewis' No. 8 L. C. Ingram, through 1-in. tubing choke (½ hr.).. 27
Shell Pet. Corp.'s No. 1 S. C. Fishburn, through tapered tubing (¼ hr.) 7
Shell Pet. Corp.'s No. 2 Boston Moore, through tapered tubing 30
Shell Pet. Corp.'s No. 7 J. Moore, through tapered tubing (¼ hr.)..... 10
C. F. Smith's No. 2 G. Jones, through various chokes 61
Stanolind and Simms et al's No. 5 H. Key, through open tubing (¼ hr.)... 53
Sun Oil Co.'s No. 3 Reppon, through tapered tubing 40
Superior Oil Co.'s No. 1 H. Pritchard, through 1-in. tubing choke (¼ hr.).. 24
Yount Lee Oil Co.'s No. 4 J. C. McGrede, through 11/16-in. tubing choke 78
Amerada Pet. Co.'s No. 3 Jenkins, through ⅝-in. tubing choke 70
Atlantic and Byrd-Frost's No. 6 M. B. Hughey, through tapered tubing 22
D.D.D. Oil Co.'s No. 1 Adkins, through 2-in. tubing choke (½ hr.) 60
Danciger & Manahan's No. 2 McNeely, through 2½-in. tubing choke 70
Moore-Zilkey-McMahon & McCulloch, through ⅝-in. tubing choke (25 min.) 40
Elzy Drlg. Co.'s No. 1 McNeely, through pinched tubing, per day 61
Gulf Production Co.'s No. 5 M. T. Cole, through tubing choke 70
Gulf Production Co.'s No. 8 W. Holt, through ⅝-in. tubing choke 75
Gulf Production Co.'s No. 9 W. Holt, through ⅝-in. tubing choke 66
Gulf Production Co.'s No. 3 T. C. Reeves, through ⅝-in. tubing choke 82
Gulf Production Co.'s No. 3 T. C. Reeves, through ⅝-in. tubing choke 66
Gulf Production Co.'s No. 3 C. Strong, through ⅝-in. tubing choke 88
C. C. Julian and Harold's No. 3 England, through tubing 61
Pet. Finance Corp.'s No. 4 Lacy, through ⅝-in. tubing choke 120
Quad Corp.'s No. 3-B Duncan, through pinched tubing 61
Shell Pet. Corp.'s No. 3-B Bivens, through tapered tubing 20
Victor C. Smith's No. 1 Knowles, through tubing, per day 61
Sun Oil Co.'s No. 3 W. Penticost, through tubing choke, per day 61
Sun Oil Co.'s No. 5 Grant Reece, through pinched tubing 61
M. E. Tabor's No. 1 North Chapel School, through tubing, per day 61
Tidal Oil Co.'s No. 7 Bivens, through open tubing (5 min.) 20
Tidal Oil Co.'s No. 4 W. D. Lacy, through casing and tubing, per day..7000
Turnbow et al's No. 1 Rodger Lacy, through open tubing (40 min.) 30
Amerada Pet. Corp.'s No. 4 E. Burnside, through ⅝-in. tubing choke 96
Arkansas Fuel Oil Co.'s No. 1-A W. E. Bolton, through 1-in. tubing choke (¼ hr.) 35
Arkansas Fuel Oil Co.'s No. 3-A P. D. Harrison, through 1-in. tubing choke (¼ hr.) 47
Arkansas Fuel Oil Co.'s No. 1-A Taylor, through 1-in. tubing choke (½ hr.).. 27
Atlantic Oil & Prod. Co. No. 3 A. V. Bacle, through tapered tubing 30
Atlantic and Wadley, No. 5 Joe Bender, through tapered tubing 22
Atlantic Oil & Prod. Co. No. 4 T. B. Harris, through 2½-in. tubing choke. 128
Atlantic Oil & Prod. Co. No. 3 Moyer, through tapered tubing 22
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Atlantic and Wadley No. 6 Turner, through tubing 22
Atlantic Oil & Prod. Co. No. 5 Hays, through tapered tubing 22
Bishop Oil Co. No. 3 E. G. Richey, through 1-in. tubing choke (45 min.) 59
Cal-Pet Corp. No. 3 Clements, through 2-in. tubing, (¼ hour) 31
Champlin and Bass' No. 3 G. S. Mattox, through various chokes (per day) 61
Columbia O. & G. Co.'s No. 2 Harley, through 1½-in. tubing choke 38
Cox and Hamon's No. 7 fee, through 2-in. tubing choke (12 min.) 40
Cox and Hamon's No. 8 fee, through open tubing (¼ hour) 32
Cox and Hamon's No. 1 Canadian Rodden, through open 2-in. tubing choke (10 min.) 30
Cranfill and Renyold's No. 4 J. T. Rembert, through various chokes (per day) 59
Danciger O. & R. Co.'s No. 1 Mattox, through various chokes (per day) 72
Devonian Oil Co.'s No. 5 Ingram, through ⅝-in. tubing choke 120
S. A. Guiberson et al's No. 1 J. M. Christian, through open tubing (¼ hour) 38
Gulf Prod. Co.'s No. 3 A. V. Bacle, through ⅝-in. tubing choke 80
Gulf Prod. Co.'s No. 8 S. C. Fishburn, through ⅝-in. tubing choke 99
Gulf Prod. Co.'s No. 9 S. C. Fishburn, through tubing 100
Gulf Prod. Co.'s No. 8 M. O. Sheppard, through ⅝-in. tubing choke 80
H.B.&W. Oil Co.'s No. 3 Gray, through open tubing (¼ hour) 30
Humble O. & R. Co.'s No. 9 T. B. Harris, through ⅝-in. tubing choke 90
Humble O. & R. Co.'s No. 9 Holland, through ⅝-in. tubing choke 87
Humble O. & R. Co.'s No. 3 M. Killingsworth, through ⅝-in. tubing choke (¼ hour) 27
Humble O. & R. Co.'s No. 8 H. M. Lawrence, through ⅝-in. tubing choke .. 86
Kewanee Oil Co.'s No. 10 T.&P.R.R., through tubing 50
Lucey Pet. Co.'s No. 4 R. Christian, through 1-in. tubing choke (½ hour) 65
Magnolia Pet. Co.'s No. 3 Jim Allen, through 2½-in. tubing choke 138
Magnolia Pet. Co.'s No. 1 J. W. Stone, through 2-in. tubing choke 140
Magnolia Pet. Co.'s No. 6 Zeigler, through open 2-in. tubing 156
Manzell Oil Co.'s No. 2 J. R. Tennery, through 2-in. tubing (¼ hour) 48
Margay Oil Co.'s No. 4 R. Corbin, through 1-in. tubing choke (¼ hour). 32
McDonald and Campbell's No. 2 Harrison, through 1-in. tubing choke (¼ hour) 30
Peyton Bros.' No. 3 J. M. Christian, through 1-in. tubing choke 61
P. & G. Prod. Co.'s No. 1 Sam Kay, through various chokes (per day) .. 59
Red Star Oil Co.'s No. 2 W. D. Anderson, through 1-in. tubing choke (45 min.). 65
Sabinas Oil Co.'s No. 3-B J. W. Falvey, through 6⅝-in. casing open 300
Shasta Oil Co.'s No. 4-A T. D. Campbell, through ⅝-in. tubing choke 75
Shell Pet. Corp.'s No. 3 Boston Moore, through tapered tubing 25
Jay Simmons et al's No. 1 A. V. Bacle, through 1-in. tubing choke (45 min.). 62
Stanolind and Simms Oil Co.'s No. 3 Boles, through open tubing (¼ hour) 50
Stanolind and Simms et al's No. 1 Albright, through 2½-in. tubing (½ hour) 50
Stanolind et al's No. 4-A J. J. Flewellen, through 2½-in. tubing (¼ hour) ... 45
Simms and Stanolind's No. 9-B Flewellen, through 2-in. tubing 105
Simms and Russ' No. 4 J. J. Flewellen, through open tubing 80
Sun Oil Co.'s No. 5 J. T. Loden, through tapered tubing 42
The Texas Co.'s No. 3 J. S. Boles, through 2½-in. tubing choke (½ hr.). 48
Tidal Oil Co.'s No. 5 Davis, through open tubing (10 min.) 24
Tidal Oil Co.'s No. 6 Davis, through open tubing 139
Tidal Oil Co.'s No. 6 Lake Devernia, through 2-in. open tubing (10 min.).. 25
Tidal Oil Co.'s No. 7 Lake Devernia, through 2-in. tubing (¼ hour) 30
Merrick, Inc.'s No. 2 W. R. Nicholson, through tubing choke 40
Yount Lee Oil Co.'s No. 4 Adrian McCrairy, through 11/16-in. tubing 90

Yount Lee Oil Co.'s No. 6-B J. C. McKinley, through 11/16-in. tubing choke 51
Barnsdall Oil Co.'s No. 2 Douglass, through 1-in. tubing choke (⅝ hour). 20
Will Brown's No. 1 E. Choice, through open 2⅛-in. tubing (½ hour) 40
Byrd-Frost Oil Co.'s No. 7 M. B. Hughey, through pinched tubing (per day)..... 59
Empire Gas & Fuel Oil Co.'s No. 1 Walker, through ½-in. tubing choke (½ hr.) 30
Canadian Oil & Prod. Co.'s No. 1 Hilburn, through open tubing (per day). 60
Carroll and Blain's No. 1 Griffin, through 1-in. tubing choke (½ hour) 40
Galves Oil Co.'s No. 2 M. T. Cole, through ⅝-in. tubing choke 90
Gulf Prod. Co.'s No. 5 M. Charles, through ⅝-in. tubing choke 72
Gulf Prod. Co.'s No. 4 Clayton, through ⅝-in. tubing choke 95
Gulf Prod. Co.'s No. 8 Culver, through ⅝-in. tubing choke 60
Gulf Prod. Co.'s No. 20 Hilburn, through ⅝-in. tubing choke 50
Gulf Prod. Co.'s No. 7 Muckelroy, through ⅝-in. tubing choke 50
Gulf Prod. Co.'s No. 4 C. Strong, through ⅝-in. tubing choke 82
Gulf Prod. Co.'s No. 3 E. L. Walker, through ⅝-in. tubing choke 60
Hughes et al's No. 1 Longley et al, through ⅝-in. tubing choke 75
T. D. Humphries' No. 6 Spear, through 1-in. tubing choke (½ hour) 40
Jones and O'Brien's No. 5 Hughey Ross, through ⅝-in. tubing choke (½ hour) 30
Jones and O'Brien's No. 3 J. Lloyd, through tubing (½ hour) 45
Lion O. & R. Co.'s No. 2 A. A. King, through 1½-in. tubing 35
Munn et al's No. 3 I.&G.N.R.R., through ⅝-in. tubing choke 75
Munn et al's No. 3 I.&G.N.R.R., through ⅝-in. tubing choke 70
Munn et al's No. 6 I.&G.N.R.R., through ⅝-in. tubing choke (½ hour) 40
Sam P. Shelbourn's No. 3 L. Martin, through pinched tubing (per day) ... 61
Shell Pet. Corp.'s No. 3 Williams and Bonner, through tapered tubing (⅛ hour) 15
Sinclair Prairie Oil Co.'s No. 14-A A. A. King, through open tubing (¼ hour). 55
Sinclair Prairie Oil Co.'s No. 16-B A. A. King, through open tubing (¼ hour). 55
Sinclair Prairie Oil Co.'s No. 17-B A. A. King, through open tubing (¼ hour). 50
Sun Oil Co.'s No. 4 Cole, through tapered tubing 49
Sun Oil Co.'s No. 2 Rottner, through tapered tubing 47
Sun Oil Co.'s No. 2 M. Strong, through tapered tubing 50
Tidal Oil Co.'s No. 8 Bivens, through open tubing 120
M. K. Tow's No. 1 Griffin Davis, through 1-in. tubing choke (45 min.) 59
Winston's No. 4 Paul Jones, through open tubing 90
H. E. Wrenn's No. 1 A. A. King ..... abd

Wells completed 317
Production 25,005
Abandoned 1

JASPER COUNTY

Rio Neches Oil Co.'s No. 1 Boykin..... abd

Wells completed 1
Abandoned 1

RUSK COUNTY

Abercrombie and Harrison's No. 2-A Brightwell, through 1½-in. tubing choke (⅛ hour) 65
Bay Oil Corp.'s No. 5 D. M. Peterson, through ⅝-in. tubing choke 45
Beard and Hammon's No. 1 H. Alexander, through 2⅛-in. tubing (40 min.) 67
Mills Bennett, Inc.'s No. 9 Brightwell, through 1-in. tubing choke (¼ hour) 15
Devonian Oil Co. and Gulf Prod. Co.'s No. 13 Motley, through ⅝-in. tubing choke 115
Empire G. & F. Oil Co.'s No. 8 C. O. Christian, through 3-in. tubing choke (¼ hour) 20
Empire G. & F. Oil Co.'s No. 5 Leverett, through 2-in. tubing choke (¼ hour) 46
Everets Drlg. Co.'s No. 1 Night and Tabor, pumping 62
Golding and Murchinson's No. 2 Brock estate, through ½-in. tubing choke.. 80
Humble O. & R. Co.'s No. 16-B S. S. Laird, through 1-in. tubing choke (½ hour) 40
Humble O. & R. Co.'s No. 2 J. E. Reed, through ⅝-in. tubing choke 52
Lewis Prod. and Selby O. & G. Co.'s No. 3 D. Wills, through pinched tubing (per day) 67
Shell Pet. Corp.'s No. 1-B T. Wells, pumping (14 hours) 45
Turman Oil Co.'s No. 6-B Brightwell, through open tubing (⅛ hour) 60
Aston Oil Co.'s No. 4 J. R. Alford, through open tubing 70
Champlin and Bess' No. 3 Grissom, through open 2½-in. tubing choke (¼ hour) 43
Jim Cloud's No. 4 W. F. Neal, through 1-in. tubing and casing (10 min.) ... 51
Jim Cloud's No. 3 Samp Stone ..... abd
Combined Oil Interest's No. 7 G. W. Eaton, through open tubing (¼ hour) 25
R. W. Fair's No. 3 Fair fee, through open 2-in. tubing (35 min.) 66
Golding and Murchinson's No. 2 J. E. Arnold, through pinched tubing (per day) 67
Gulf Prod. Co.'s No. 6 T. B. Cashen, through ⅝-in. tubing choke 92
Gulf Prod. Co.'s No. 3 Hoxie Johnson, through ⅝-in. tubing choke 80
Guif Prod. Co.'s No. 3-C Mayfield, through ⅝-in. tubing choke 50
Humble O. & R. Co.'s No. 2 R. T. Cameron, through ⅝-in. tubing choke (½ hour) 41
Humble O. & R. Co.'s No. 4-B Kangerga, through ⅝-in. tubing choke (⅛ hour) 49
Humble O. & R. Co.'s No. 10 W. L. Price, through ⅝-in. tubing choke (½ hour) 35
Humble O. & R. Co.'s No. 12 W. L. Price, through ⅝-in. tubing choke (½ hour) 41
Humble O. & R. Co.'s No. 6-A J. H. Silvey, through ⅝-in. tubing choke (½ hour) 58
Humble O. & R. Co.'s No. 7-A R. E. Silvey, through ⅝-in. tubing choke (½ hour) 47
Humble O. & R. Co.'s No. 2 J. E. B. Sned, through ⅝-in. tubing choke (½ hour) 57
H. L. Hunt's No. 5-A J. C. Maxwell, through open tubing (½ hour) 60
H. L. Hunt's No. 2 Ras Pool, through open 2-in. tubing 70
H. L. Hunt's No. 2 A. Reed, through open tubing 49
Mid-Kansas O. & G. Co.'s No. 2 H. O. and C. W. Burton, through 2½-in. tubing choke 80
Mid-Kansas O. & G. Co.'s No. 3 M. M. Cross, through 2½-in. tubing choke.. 80
Mid-Kansas O. & G. Co.'s No. 6 J. F. Mason, through 2½-in. tubing choke 80
Mid-Kansas O. & G. Co.'s No. 2 L. B. Rollins, through open tubing 60
Mullins and Strickland's No. 1 Brewer Cemetery, through open 2½-in. tubing choke (½ hour) 36
Ralph R. Odgen's No. 2 Jobe, through open 2-in. tubing choke 40
Frank W. Roe et al's No. 1 B. F. Maxwell ..... abd
Shasta Oil Co.'s No. 2 Ras Pool, through open tubing 65
Sinclair Prairie Oil Co.'s No. 2 D. Ledbetter, through open tubing (¼ hour) 40
Stanolind O. & G. Co.'s No. 2 R. J. Barton, through open tubing (20 min.) .. 67
Stoddard and Delaney's No. 2 L. J. Pinkston, through ⅝-in. tubing choke 50
Tex-Jersey Oil Co.'s No. 3-A W. P. Keeling, through open tubing 90
Tulsa Oil Co.'s No. 3 Wheelis, through open tubing (¼ hour) 37
Venable and McClanahan's No. 8 J. A. Birdwell, through open tubing (20 min.) 60
Ward Oil Co.'s No. 5 Giles, through open tubing 41
C. K. West's No. 2 Cole, through open tubing (½ hour) 76
Roberts Oil Co.'s No. 1 Mt. Comfort Church, through 1-in. tubing choke (½ hr.; no gauge).
Derby Pet. Co.'s No. 7-B C. O. Christian, through pinched tubing (per day) 61
Everett Drlg. Co.'s No. 1 Mt. Colvert School, through open tubing 25
Gulf Prod. Co.'s No. 2-A Sexton, through ⅝-in. tubing choke 55
Houston Oil Co.'s No. 2-B J. S. Bean, through pinched tubing (per day) .. 62
Humble O. & R. Co.'s No. 56 L. D. Crim, through ⅝-in. tubing choke (½ hour) 40
Humble O. & R. Co.'s No. 3-A J. T. Sexton, through ⅝-in. tubing choke 20
Karona Oil Co.'s No. 2 J. N. Peterson, through pinched tubing (per day) ... 61
Louisiana O. & R. Co.'s No. 3 H. Mayfield, through 1-in. tubing choke (¼ hour) 22
Olsen Bros.' No. 4 Powers, through pinched tubing (per day) 62
L. G. Priest's No. 1 Oscar Robertson, flowing by heads (40 min.) 80
Stanolind O. & G. Co.'s No. 6 J. R. Bealle, through 2½-in. tubing choke. 105
Wheelock and Collins' No. 10 Dick Wells, through open tubing 130
T. C. Adams' No. 1 Deason, through open tubing 65
C. L. Archer's No. 1 H. G. Stewart, through open tubing (¼ hour) 30
Bay Oil Corp.'s No. 3 W. O. Alford, through ⅝-in. tubing choke (5 min.) 10
East Texas Ref. Co.'s No. 2 Currin Barksdale, through open tubing 85
R. W. Fair et al's No. 1 A. J. Deason, through open tubing (½ hour) 20
Gulf Prod. Co.'s No. 4 S. S. Stone, through ⅝-in. tubing choke 72
Hinson Oil Co.'s No. 2 R. A. Motley, through 2-in. tubing choke (¼ hour). 50
Howell's No. 1 Irion and Motley, through 1-in. tubing choke (10 min.) 30
Humble O. & R. Co.'s No. 2 S. A. Grover, through ⅝-in. tubing choke (½ hour) 35
Humble O. & R. Co.'s No. 2 Leah Hill, through ⅝-in. tubing choke (½ hour) 51
Humble O. & R. Co.'s No. 2 E. S. Thrash, through ⅝-in. tubing choke (⅛ hour) 46
Humble O. & R. Co.'s No. 2-A H. White, through ⅝-in. tubing choke (⅛ hour) 43
H. L. Hunt's No. 1-E Joe Lee, through open 2-in. tubing 170
H. L. Hunt's No. 6 W. P. Moore, through open 2-in. tubing (⅛ hour) 65
H. L. Hunt's No. 1-B R. J. Vinson, through open tubing (⅛ hour) 12
C. L. McMahon's No. 3 Finney, through open tubing 55
Magnolia Pet. Co.'s No. 1 W. B. Key, through ⅝-in. tubing choke (¼ hour) 34
Martin and Cockburn's No. 3 J. E. Canstler, through open 2-in. tubing choke (⅛ hour) 50
Mid-Kansas O. & G. Co.'s No. 2 H. L. Griffin, through 2½-in. tubing choke. 60
Mills-Bennett Corp.'s No. 4 Pinkston, through open tubing (⅛ hour) 30
M. W. Ranson's No. 1 E. B. Alford, through open tubing 40
Geo. B. Ray's No. 3 J. H. Wilson, through open 2-in. tubing choke (20 min.) 60
W. M. Shaw, tr.'s No. 1 E. B. Alford, through open 2½-in. tubing 60
Sinclair Prairie Oil Co.'s No. 26 Kinney, through open tubing (⅛ hour) 30
Sinclair Prairie Oil Co.'s No. 9-B Mayfield, through open tubing (⅛ hour). 45
Smith and McDonald's No. 1 Deason, through 2-in. tubing choke 25
Spanco Oil Co.'s No. 1 E. B. Alford, through open tubing 35
Spanco Oil Co.'s No. 4 John Bell, through open tubing (⅛ hour) 50
Stanolind O. & G. Co.'s No. 2 T. O. Mason, through open tubing (⅛ hour).. 20
Merry Bros. and Perini's No. 1-B J. M. Price, through ⅝-in. tubing choke (⅛ hour) 65
The Texas Co.'s No. 3 Price, through open 2-in. tubing choke 100
Abercrombie and Harrison's No. 8 Cantrell, through 1¼-in. tubing 61
DeArmon Bros.' No. 4 M. R. King, through open tubing (¼ hr.) 35
Gulf Prod. Co.'s No. 6 C. E. Christian, through ⅝-in. tubing 75
Gulf Prod. Co.'s No. 7-A C. E. Christian, through ⅝-in. tubing 82
Rhodes Drlg. Co.'s No. 1 S. E. Brox, through pinched tubing (per day) ... 59
Houston Prod. Co.'s No. 2 S. S. Laird, through open tubing 60
Humble O. & R. Co.'s No. 5-B H. Sexton, through ⅝-in. tubing (⅛ hr.) .. 33
Jackson et al's No. 1 Florence, through casing and tubing 61
E. M. Jones and Houston Oil Co.'s No. 3 B. F. Hindman, through pinched tubing (per day) 61
Lewis et al's No. 1 Mrs. A. W. Buckner. abd
Lewis Prod. and Selby O. & G. Co.'s No. 4 D. Wills, through open tubing (⅛ hr.) 60
C. L. McMahon et al's No. 4 S. S. Laird, through open tubing (20 min.) 40
Mills Bennett Prod. Co.'s No. 10 Brightwell, through open tubing 200
Roberts and Roscoe's No. 4 C. E. Christian, through pinched tubing (per day) 61
Stanolind O. & G. Co.'s No. 2 C. O. Christian, through 2½-in. tubing (¼ hr.). 35
The Texas Co.'s No. 3 Chapperal, through 2-in. tubing 100
F. L. Thompson's No. 2 Dickerson, through ⅝-in. tubing choke 30
Adams and Rowe, Inc.'s No. 2 J. E. Arnold, through open tubing 57
Jim Cloud's No. 5 W. F. Neal, through 1-in. tubing choke (10 min.) 20
Combine Oil Interest's No. 9 Eaton, through ⅝-in. tubing choke 132
Deep Rock Oil Co. et al's No. 6 Stowall, through open tubing 105
Gaynete Oil Co.'s No. 2 Colin Young, through open tubing 60
Golding and Murchinson's No. 3 E. E. Thrash, through open tubing 150
Gulf Prod. Co.'s No. 2 Elnora Cole, through ⅝-in. tubing choke 70
Gulf Prod. Co.'s No. 6 C. K. Grissom, through ⅝-in. tubing 65
Gulf Prod. Co.'s No. 3-D Mayfield, through ⅝-in. tubing choke 80
Gulf Prod. Co.'s No. 2 Walter Shaw, through ⅝-in. tubing choke 72
Gulf Prod. Co.'s No. 4-C Mayfield, through ⅝-in. tubing choke 82
Humble O. & R. Co.'s No. 19 Kangerga, through ⅝-in. tubing (½ hr.) 35
Humble O. & R. Co.'s No. 2-B H. A. Piercy, through ⅝-in. tubing choke (½ hr.) 46
Humble O. & R. Co.'s No. 5-B R. E. L. Silvey, through ⅝-in. tubing choke .. 43
Humble O. & R. Co.'s No. 7-B R. E. L. Silvey, through ⅝-in. tubing choke (½ hr.) 47
Humble O. & R. Co.'s No. 2-C R. E. L. Silvey, through ⅝-in. tubing choke (½ hr.) 42
Humble O. & R. Co.'s No. 3 J. E. B. Sneed, through ⅝-in. tubing choke (½ hr.) 41
Humble O. & R. Co.'s No. 3 F. F. S. Wooster, through ⅝-inch tubing choke 39
H. L. Hunt's No. 5 W. P. Moore, through 2-in. open tubing (½ hr.) 75
H. L. Hunt's No. 4 S. A. Plowman, through 2-in. tubing open (½ hr.) .. 65
H. L. Hunt's No. 2 Neil Turner, through open 2-in. tubing 90
Imperator Oil Co.'s No. 2 Cox, through open tubing 60
Lion O. & R. Co.'s No. 3 W. P. Brett, through open tubing (½ hr.) 35
M. H. McMurray et al's No. 2 Samp Stone, through open tubing (½ hr.).. 61
G. A. Manahan's No. 2 D. R. Deason, through 1-in. tubing choke (¼ hr.).. 16
Mid-Kansas O. & G. Co.'s No. 2 H. C. Burton, through 2½-in. tubing on 2-in. lead 110
Mid-Kansas O. & G. Co.'s No. 7 S. H. Moores, through open 2½-inch tubing. 40
Ortis Oil Co.'s No. 1 Church, through open 2-in. tubing 67
Primrose Pet. Corp.'s No. 2 W. P. Brett, through open tubing 80
Geo. B. Ray's No. 4 Wilson, through open tubing 60
D. B. Reed and Standard Supply Co.'s No. 1 Church, ⅝-in. tubing 75
Restal Drlg. Co.'s No. 2 Maxwell, 24 hrs. pumping 84
Sinclair Prairie Oil Co.'s No. 23 Kinney, through open tubing (¼ hr.) 40
Sinclair Prairie Oil Co.'s No. 4 Ledbetter, through open tubing (¼ hr.) ... 40
Stanolind O. & G. Co. and Pure Oil Co.'s No. 4 R. A. Moores, through open tubing 11
Stanolind O. & G. Co. and Pure Oil Co.'s No. 5 R. A. Moores, through open tubing (¼ hr.) 32
G. N. Johnson's No. 1 R. G. Mason, through 2½-in. tubing 105
John Hoosier's No. 1-C G. W. Eaton, through ⅝-in. tubing choke (10 min.) 18
E. L. Chapman's No. 2 Wm. Futch, through tubing, per day pinched 61
Gulf Prod. Co.'s No. 5 C. E. Christian, through ⅝-in. tubing 75
Humble O. & R. Co.'s No. 51 Crim, through ⅝-in. tubing (⅛ hr.) 45
Louisiana O. & R. Co.'s No. 3 W. N. Jernigan, through open tubing 40
Murray and Goode's No. 1 Leath ..... abd
Shell Pet. Corp.'s No. 5 D. Wills, through tapered tubing (⅛ hr.) 11
Blackwell O. & G. Co.'s No. 5 W. P. Moore, through open tubing 123
Casey Oil Co.'s No. 1 E. B. Alford..... abd
Jim Cloud's No. 3-A Samp Stone, through open tubing (⅛ hr.) 35
O. R. Cooper's No. 1 E. E. Moore, through 2-in. tubing choke 40
Devonian and Barnsdall's No. 3 J. R. Milstead, through open 2-in. tubing (⅛ hr.) 40
Everts Drlg. Co.'s No. 1 Joe Lee, through ⅝-in. tubing choke 75
Golding and Murchinson's No. 7 Fair, through ⅝-in. tubing choke 75
Gulf Prod. Co.'s No. 7 E. E. Thrash, through ⅝-in. tubing choke 76
Herd and Rodgerson's No. 1 E. P. Williams ..... abd
Humble O. & R. Co.'s No. 2 E. S. Holt, through ⅝-in. tubing (½ hr.) 41
Humble O. & R. Co.'s No. 2 E. W. Naulls, through ⅝-in. tubing 32
Humble O. & R. Co.'s No. 11 W. L. Price, through ⅝-in. tubing choke (½ hr.).. 36
Humble O. & R. Co.'s No. 3 W. L. Price, through ⅝-in. tubing (½ hr.) 48
Humble O. & R. Co.'s No. 1-B Virginia Turner, through ⅝-in. tubing choke (½ hr.) 51
Humble O. & R. Co.'s No. 10 J. E. Wheelis, through ⅝-in. tubing choke (½ hr.) 51
Humble O. & R. Co.'s No. 2 C. W. Wilson, through ⅝-in. tubing choke (½ hr.) 45
H. L. Hunt's No. 1-E Bradford, pumping (4 hrs.) 61
H. L. Hunt's No. 6-A H. C. Maxwell, through open 2-in. tubing (½ hr.) 45
H. L. Hunt's No. 3 V. E. Reid, through 2-in. tubing 40
McPhail and Kimbrough's No. 1 E. A. Thrash, through open tubing 57
M. R. G. Co.'s No. 3 H. L. Griffin, through ⅝-in. tubing choke 76
Mack Oil Corp.'s No. 1 S. H. Arnold .... gas
Mid-Kansas O. & G. Co.'s No. 10 W. M. Cross, through open tubing 100
Mid-Kansas O. & G. Co.'s No. 3 Kangerga, through open 2½-in. tubing.. 50
Mid-Kansas Oil & Gas Co.'s No. 1 R. M. Weaver, through 2½-inch tubing.... 60
J. C. Prine's No. 1 P. C. Warren, through 2-in. tubing 60
D. C. Robert's No. 2 E. B. Alford, through 2-in. tubing 6
H. G. Sampson's No. 1 Goforth, through 2-in. tubing (½ hr.) 60
Sinclair Prairie Oil Co.'s No. 3 Ledbetter, through open tubing 174
Sinclair Prairie Oil Co.'s No. 24 Kinney, through open tubing 90
Stanolind et al's No. 3 R. A. Moore, through open 2½-inch tubing 88
Stanolind et al's No. 5 W. H. Siler, through 2½-in. tubing (¼ hr.) 40
Stedham and Thrasher's No. 1 W. B. Keeling, through open tubing. (5 min.) 15
Tauber and McKee's No. 2 Tolliver, through 2½-in. tubing choke 50
Tidal Oil Co.'s No. 4 Finney, through tubing (10 min.) 14
Turman Oil Co.'s No. 5-A Dark, through open 2½-in. tubing 100
Venerable and McClannahan's No. 9 J. A. Bridwell, through open 2½-in. tubing 175

Wells completed 192
Initial production 10,790
Gas 1
Abandoned 6

SMITH COUNTY

Bunte et al's No. 2-B Jarvis, through 1-in. tubing choke 50
J. R. Gaskey's No. 1 S. S. Cooke, through open tubing 150
J. E. Lucas and Hobbs' No. 1 L. S. Sartin, through ¼-in. tubing choke 40
Pinegrove Oil Co.'s No. 3 S. S. Cooke, through pinched tubing, per day ... 67
Professional Oil Co.'s No. 2 T. O. Wright, through open tubing 35
Sinclair Prairie Oil Co.'s No. 7-C Jarvis, through open tubing (½ hr.) ... 85
Sinclair Prairie Oil Co.'s No. 3 Patterson, through open 2½-in. tubing choke 65
E. W. Stewart's No. 1 McDavis, through ½-in. tubing choke 15
Sun Oil Co.'s No. 2 R. L. Henson, through open tubing 35
Sun Oil Co.'s No. 3-B H. A. Pace, through tapered tubing 72
The Texas Co.'s No. 6 Blackwell, through ⅝-in. tubing choke 40
Tulsa Oil Co.'s No. 1 M. L. Thompson, through open tubing 80
Gulf Production Co.'s No. 5 Jack Wiley, through ⅝-in. tubing choke 80
Hawkins and Sutton's No. 1 Church, through 2½-in. tubing choke 60
Johnson and Owens' No. 2-A Jackson, through open tubing 67
Mid-Kansas Oil & Gas Co.'s No. 7 M. L. Thompson, through 2½-in. tubing choke 180
Nas and Bloxom's No. 2 Cole, through open tubing (¼ hr.) 15
J. O'Neal's No. 4 Mayfield, through pinched tubing 70
Pugh-Hickman's No. 3 S. S. Cooke, through open tubing 70
Sinclair Prairie Oil Co.'s No. 9-A Mayfield, through open tubing (¼ hr.)... 40
Sinclair Prairie Oil Co.'s No. 4 Amanda Wiley, through 1-in. tubing choke (¼ hr.) 30
Sinclair Prairie Oil Co.'s No. 2 Jack Wiley, through open tubing (¼ hr.) . 40
British-American's No. 2 M. L. Thompson, through open tubing and casing (¼ hr.) 136
C. B. Bunte and Droppleman's No. 2-A Jarvis, through open tubing 100
McMahon-Moore and McCulloch's No. 3 S. S. Cooke, through open 2½-in. tubing 140

Hemp Florence's No. 2 S. S. Cooke, through open tubing (¼ hr.) 40
Sinclair Prairie Oil Co.'s No. 12-A Jarvis, through open tubing (¼ hr.) 40
Sinclair Prairie Oil Co.'s No. 9-C Jarvis, through open tubing (¼ hr.) 45
Sinclair Prairie Oil Co.'s No. 10-C Jarvis, through open tubing (¼ hr.) 45
Sinclair Prairie Oil Co.'s No. 12-A Mayfield, through open tubing (¼ hr.)... 45
Sinclair Prairie Oil Co.'s No. 2 Bunch Wilson, through open tubing (¼ hr.). 45
Sinclair Prairie Oil Co.'s No. 5 Bunch Wilson, through open tubing (¼hr.).. 45
Sun Oil Co.'s No. 5 J. A. Lane, through tapered tubing 29
Sun Oil Co.'s No. 3-A A. V. Ritche through tapered tubing 46
Sun Oil Co.'s No. 1 St. Clair, through tapered tubing 38
The Texas Co.'s No. 2-B Jarvis, through ¼-hr. gauge 32
Tulsa Oil Co.'s No. 4 Wheelis through open 2½-in. tubing 120
Droppleman and Bunte's No. 1 Atkinson Big Indian Synd.'s No. 5 Wolford, through open tubing (½ hr.) ..... abd 60
Alex McCutcheon's No. 1 Stone, through open tubing (¼hr.) 30
Nash and Strickland's No. 2 T. O. Wright, through open 2½-in. tubing (½ hr.) . 80
Pugh and Hickman's No. 3 R. G. Wright, through open tubing (½ hr.) 60
Rasmussen et al's No. 1-A S. S. Cooke, through open 2½-in. tubing (¼ hr.). 40
Sinclair Prairie Oil Co.'s No. 16-A Mayfield, through open tubing (¼ hr.).. 45
Sinclair Prairie Oil Co.'s No. 17-A Mayfield, through open tubing (½ hr.).. 45
Sun Oil Co.'s No. 3 R. L. Henson, through tapered tubing 71
Weaver-Crim Oil Corp.'s No. 2 fee, through open tubing (¼ hr.) 38

Wells completed 47
Initial production 2801
Abandoned 1

SAN AUGUSTINE COUNTY

Jones and Tennant's No. 1 A. P. Davis estate ..... abd

Wells completed 1
Abandoned 1

UPSHUR COUNTY

Barkley and Lincoln's No. 3 J. B. Wells, through 1-in. tubing choke (¼ hr.).. 30
Cal-Pet Corp.'s No. 3 W. F. Glenn, through open tubing 80
Humble Oil & Refining Co.'s No. 4 E. Edwards, through ⅝-in. tubing choke. 46
Humble Oil & Refining Co.'s No. 2-A Eva O'Byrne, through ⅝-in. tubing choke 16
Mudge Oil Co.'s No. 7 G. W. Free, through various chokes, per day 67
Sun Oil Co.'s No. 5 Hergroves, through tapered tubing 34
Atlantic Oil & Production Co.'s No. 6 D. A. Porter, through tapered tubing 22
H. W. Clarkston et al's No. 3 Eva O'Byrne, through tubing choke per day 62
Conservative Oil Co.'s No. 1 C. J. Mackey, through 10/64-in. tubing choke 100
E. & D. Oil Co.'s No. 2 Thomas Wells, through various chokes 62
Everett Drilling Co.'s No. 2 A. J. Saunders, through various chokes, per day 62
Magnolia Petroleum Co.'s No. 9 Adkins, through open tubing 60
Shano Oil Co.'s No. 3 Dobb Rodden, through various chokes, per day 62
Simms and Stanolind Oil & Gas Co.'s No. 8-B J. J. Flewellen ..... No gauge
Chatam Oil Co.'s No. 2 H. Fenton, through various chokes 61
Danciger Oil & Refining Co.'s No. 2 Stinchomb, through open tubing (¼ hr.) 27
Dean and Atkins' No. 2 O. M. Victory, through open tubing (¾ hr.) 40
Flannigan Production Co.'s No. 1 Whitehurst, by heads 55
Gwynn and Overby's No. 2 A. J. Sanders, through various chokes, per day. 61
Humble Oil & Refining Co.'s No. 16 J. K. Edwards, through various chokes 65
Humble Oil & Refining Co.'s No. 8 I. D. Smith, through ⅝-in. tubing choke (¼ hr.) 35
Humble Oil & Refining Co.'s No. 2 J. M. Smith, through ⅝-in. tubing (¼ hr.) 12
Island Oil Co.'s No. 1 Bonner estate, through open tubing 125
Lester & Duffield's No. 2 J. Jones, through various chokes, per day 61
Margay Oil Corp.'s No. 3 C. M. and G. M. Victory, through various chokes 100
Mudge Oil Co.'s No. 3 S. E. Richardson, through various chokes, per day 61
Shell Petroleum Corp.'s No. 3 W. M. Landers, through tapered tubing (¼ hr.) 7
Humble Oil & Refining Co.'s No. 2 A. O. Phillips, through ⅝-in. tubing choke. 92
Simms Oil Co.'s No. 2 W. R. Nicholson, through 2-in. tubing 120
Sun Oil Co.'s No. 4 J. T. Lodem, through open tubing 44
J. A. Woods' No. 5 A. J. Sanders, through open tubing (¼ hr.) 50

Wells completed 31
Initial production 1719

VAN ZANDT COUNTY

Glentex Petroleum Co.'s No. 1 H. F. Hooks ..... abd
Pure Oil Co.'s No. 5 W. H. Cooke, first 24 hrs. 200
Pure Oil Co.'s No. 2 C. White, first 24 hrs. after choked for proration 100
Pure Oil Co.'s No. 1 R. M. Butler, first 24-hour gauge after choked for proration 75
Pure Oil Co.'s No. 9 A. R. Tunnell 93
Pure Oil Co.'s No. 4 D. R. Howell 131
Pure Oil Co.'s No. 3 J. F. Crim 118

Wells completed 7
Initial production 717
Abandoned 1

North Central Texas

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Archer	32	1,374	10	0
Brown	6	9	1	2
Callahan	2	0	2	0
Coleman	4	355	1	0
Collin	0	0	0	0
Cooke	0	0	0	0
Eastland	1	0	1	0
Grayson	1	0	1	0
Jack	1	0	1	0
Palo Pinto	6	0	4	2
Shackelford	9	57	1	5
Stephens	0	0	0	0
Wichita	22	488	5	0
Wise	1	0	1	0
Young	38	1,451	24	0
Total May	123	3,734	52	10
Total April	101	2,728	62	5
Difference	22	1,006	10	5

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Dig.	Ttl.
Archer	9	8	28	45
Brown	1	6	5	12
Callahan	3	1	3	7
Coleman	1	7	4	12
Cooke	2	2	1	5
Clay	0	0	0	0
Eastland	1	1	3	5
Erath	1	1	0	2
Jack	0	0	3	3
Palo Pinto	3	5	6	14
Shackelford	6	2	2	10
Stephens	0	2	1	3
Throckmorton	1	1	2	4
Wichita	0	1	9	10
Wilbarger	0	2	1	3
Young	16	2	24	42
Miscellaneous counties..	0	8	13	21
Total May	44	49	105	198
Total April	48	35	112	195
Difference	4	14	7	3

WELLS COMPLETED

ARCHER COUNTY

L. F. Wilson, Consolidated Oil Co. 1.... location temp. abd
Fain-McGaha, Fain-McGaha Oil Corp. 1 103
J. C. Thomas, Jones & Holcombe 1.... 8
J. C. Thomas, Jones & Holcombe 3.... 15
E. E. Hilderbrand, C. B. Long 1..... dry
F. C. Green, Bridwell Oil Co. 7..... 50
Falls County School Land-B, F. P. Cullum 3 70
Falls County School Land-B, F. P. Cullum 4 60
Falls County School Land (Fain-McGaha), Cullum & Alexander 1 ..... dry
A. L. Harris, J. H. Krahenbuhl & Presley 1 ..... dry
F. C. Green-B, W. E. Maxson, Jr. 13.... 54
Brown & Smith, Moran-Golding-Cochran 3 20
J. H. Turbeville, W. B. Omohundro 3.... dry
Falls County School Land (Tipkin), Perkins & Cullum 6 60
Falls County School Land (Tipkin), Perkins & Cullum 7 60
J. T. Richardson-A, Petroleum Prod. Co. 2 ..... dry
Perkins-Cullum, T. M. Heilorns et al 1 16
White, Holbrook & Woods 2 12
Thomas, Jones & Holcombe 4..... 16
Andrews, E. B. Lawson 1 ..... dry
Wilson, Lindsey Drlg. Co. 2 350
Wilson, United Producers Co. 1..... dry
D. W. Carter, L. T. Burns 1 ..... dry
Pastusek, L. T. Burns 1 ..... dry
Sponts, C. W. Clark et al 1 ..... dry
Stinnett, G. A. Gifford 1 2
S. Webb, G. I. Oil Co. 3 27
Green-B, W. E. Maxson, Jr. 14 51
Green, George L. Pace 4 30
Falls County School Land (Tipkin), Perkins & Cullum 8 80
Falls County School Land (Tipkin), Perkins & Cullum 9 90
Green, Schultz & Weaver 9 200

Wells completed 32
Production 1374
Dry 10

BROWN COUNTY

Kilgore, G. Christie 1 5
J. D. Caldwell, Beadle 1 ..... dry
J. D. Caldwell, Beadle 2 4
A. G. Norton, H. P. Evans 2 ..... dry
J. L. Kelley, James-Pollard-Forester 1 dry
J. S. Leach, Van Bibber & Trout 1..... gas

Wells completed 6
Production 9
Dry 3
Gas 1
Gas production 3,000,000

CALLAHAN COUNTY

O. & G. Berry, George Perry et al 2.... dry
Goodman, Andy Urban 1 ..... dry

COLEMAN COUNTY

Mrs. N. D. Newton, Centennial O. & G. Co. 6 55
Bert Sackett, Hayek Oil Co., 3..... dry
W. M. Burkett, Neversuch Oil Co. 5.... 100
T. C. Watson, F. D. Aldrich 1 200

Wells completed 4
Production 355
Dry 1

COLLIN COUNTY

E. L. Williams, R. D. Gordon 1..... location temp. abd.

COOKE COUNTY

A. J. Dennis, A. L. Erlewine 4..location abd

EASTLAND COUNTY

J. A. Woods, Mays et al 1 ..... dry
W. C. Kincaid, Braden Co. 6 (recompleted) 10

GRAYSON COUNTY

H. M. Curtis, John Marshall 1-A ..... dry

JACK COUNTY

S. Webb, R. J. Brown 2 ..... dry

PALO PINTO COUNTY

T. R. Ennis, Brazos River Gas Co. 2 (recompleted) ..... gas
Williams et al, C. F. Gibson 1 ..... gas
Caine, W. K. Gordon et al 1..... gas
Chisolm, Hoffman & Page 1 ..... gas
C. L. Link, Nelson Oil Synd. 1 ..... gas
Jenkins, Brazos River Gas Co. 2 ..... dry
Dalton, Sinclair-Prairie Oil Co. 1 ..... dry

Wells completed 6
Gas 4
Dry 2
Gas production 16,210,000

SHACKELFORD COUNTY

Morris & Buie, Freeman-Hampton Oil Corp. 1 25
E. A. Jatter, Gilman & McMurray 1.... dry
E. E. Whitney, Loggie et al 1..... gas
M. E. Ledbetter, McCarter et al 1 ..... dry
Tuelon (Ledbetter), McCarter et al 1... dry
L. H. Hill, A. C. Walker 2..... dry
L. H. Hill, A. C. Walker 4..... 12
Morris & Buie, Charter Oil Co. 1..... 20
P. K. Clark, Kaiser & Deming 3..... dry

Wells completed 9
Production 57
Gas 1
Dry 5
Gas production 7,500,000

STEPHENS COUNTY

M. I. Lassiter, O. F. Coffman, trustee 1 ..... temp. abd

WICHITA COUNTY

Willis, Kriss & Schroeder 1 ..... dry
Mrs. B. Parker et al-B, J. L. Swanner 5 dry
W. P. and J. F. Bickley, R. R. Clark et al 16 35
W. P. and J. F. Bickley, R. R. Clark et al 17 35
W. P. and J. F. Bickley, R. R. Clark et al 18 35
J. L. and T. J. Waggoner, G. W. Cooper 19 40
J. L. and T. J. Waggoner-H. T. F. Hunter and Venmex Oil Co. 2 30
W. B. Honaker, George J. Proctor 5.... 18
W. B. Honaker, Schlaffke & Blair 5.... 17
E. Daume, A. T. Wolfe 1 25
E. Daume, A. T. Wolfe 2 15
E. Daume, A. T. Wolfe 3 ..... dry
E. Daume, A. T. Wolfe 4 9
E. Daume, A. T. Wolfe 5 10
E. Daume, A. T. Wolfe 6 15
Dobie, F. C. Baldwin 5 15
Bickley, R. R. Clark 19 25
Waggoner Bros., G. W. Cooper 20 80
Overby, H. B. Hill 1 70
Honaker, B. H. Hubbard 1 ..... dry
Honaker, Schlaffke-Blair 6 14
Daume, A. T. Wolfe 7 ..... dry

Wells completed 22
Production 488
Dry 5

WISE COUNTY

Frye, Jay Eye Oil Co. 1 ..... dry

YOUNG COUNTY

S. R. Jeffery, Arcadia Ref. Co. 1..... dry
S. R. Jeffery-F, Floyd Ard 1 ..... dry
Wolf, Bolin & Lindsey 11 15
Lou Boyd, R. S. Bolling 1 ..... dry
Wolf, Bridwell Oil Co., 2 15
A. Williams, Cable Oil Co. 1 20
Brown, N. B. Dollins 1 ..... dry
R. E. Huffman, Fain-McGaha Oil Corp. 1 ..... dry
E. P. Tatum, Iron Mt. Oil Co. 5 40
Larimore, King Royalty Co. 37 250
Larimore, Kleiner & Riggs 7 40
Larimore, Kleiner & Riggs 8 35
Mrs. Fay Clark, W. N. Maer 1 ..... dry
M. F. Wells, McCue 1 ..... dry
S. R. Jeffery-C, George Mollenkoph 1.. dry
Olney Golf Club, D. M. Rose 1 ..... dry
J. W. Bishop, C. C. Williams 1 ..... dry
Keith, C. C. Williams 1 ..... dry
Robinson-A, Wooten & Reed 2 ..... dry
V. Swain, Wooten & Reed 3 62
Montgomery, C. E. Beavers 1 ..... dry
Orr et al, L. T. Burns 1 ..... dry
Belknap Coal Co., W. N. Cook 1 ..... dry
Culbertson, Culbertson Co. 1 ..... dry
Porter, Glover & Huggins 1 ..... dry
Bullock, Lee Hamilton 1....Loc. temp. abd
Logan, John Harville 3 ..... dry
Jones, Hedrick, Luther, 1 ..... dry
Taack, George L. Kelly 1 ..... dry
Larimore, King Royalty Co. 38 240
Larimore-C, King Royalty Co. 13 ..... dry
Larimore-A, Kleiner & Riggs 8 30
Larimore-A, Kleiner & Riggs 9 ..... dry
Larimore-B, Kleiner & Riggs 9 60
Hawkins, John L. McMeens 1 ..... dry
Loftin, Samms & Watson 1 6
Rowley, O. M. Wallace 1 ..... dry
Manning, D. M. Knox 1 638

Wells completed 38
Production 1451
Dry 24

West Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Borden	1	0	1	0
Fisher	1	300	0	0
Glasscock	1	0	1	0
Howard	2	1,432	0	0
Loving	5	227	1	0
Pecos	6	251	1	0
Upton	1	0	1	0
Ward	6	430	1	0
Total May	23	2,640	6	0
Total April	13	835	9	1
Difference	10	1,805	3	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Dig.	Ttl.
Crane	1	0	1	2
Ector	0	0	2	2
Fisher	2	1	5	8
Howard	1	2	5	8
Irion	1	1	2	4
Jones	2	1	3	6
Loving	0	3	7	10
Pecos	1	1	3	5
Reagan	0	2	4	6
Upton	0	0	1	1
Ward	0	9	14	23
Winkler	0	0	1	1
Miscellaneous counties..	5	18	14	37
Total May	13	38	62	113
Total April	22	44	56	122
Difference	9	6	6	9

WELLS COMPLETED

BORDEN COUNTY

S. I. Munger, Sal-Ammoniac Prod. Corp. 1 ..... dry

FISHER COUNTY

Wm. Flannigan, Southern Oil Corp. 1.. 300

GLASSCOCK COUNTY

R. L. Gillean, Peck & Service 1 ..... dry

HOWARD COUNTY

W. R. Settles-B, American Maracaibo Co. 1 (recompleted) 140
W. R. Settles, Cardinal Oil Co. 3 1420
G. W. Overton, Group 1 and Continental 4 12

Wells completed 2
Production 1432

LOVING COUNTY

H. Lepp, Lockhart & Co. 2 ..... abd
W. B. Lind et al, Slack et al 1 (recompleted) 30
J. L. Ferguson, Bessie Miller et al 1... abd
Hugo Freels, Wm. Little 1 182
Reagan & McElvain, Reagan & McElvain 2 45
Capitola Pool, W. A. Sudderth 1 ..... abd

Wells completed 5
Production 227
Dry 1

PECOS COUNTY

Pecos Valley Oil Co.-A, M. H. Black 1. dry
L. L. Byrne, Hampton et al 1 20
J. H. Tippett-F (Shell), Cardinal Oil Co. 4 50
J. H. Tippett-J, Cardinal Oil Co. 1 3
H. Monroe, Corvette Oil Corp. 9 80
J. H. Tippett (Humble), Corvette Oil Corp. 4 98
H. J. Eaton, C. L. Dittman et al 1 (recompleted) 45

Wells completed 6
Production 251
Dry 1

UPTON COUNTY

John F. Lane-B, G. E. Farley et al 1.. 327

WARD COUNTY

S. S. Owen et al, Abell Bros. et al 1... 85
W. E. Cannon, Stanolind Oil & Gas 1... 35
Gus Burtner, T. R. White et al 1 ..... abd
G. W. O'Brien et al, Sid Richardson et al 7 125
R. H. Gill, Buck Sturm et al 2 145
Henry James, T. P. Coal & Oil Co. 2... 40

Wells completed 6
Production 430
Dry 1

Panhandle Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	3	220	0	2
Gray	3	380	1	0
Hutchinson	2	160	0	0
Moore	1	155	0	0
Total May	9	915	1	2
Total April	9	3,094	0	1
Difference	0	2,179	1	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Dig.	Ttl.
Carson	3	0	4	7
Gray	5	4	25	34
Hutchinson	2	3	3	8
Moore	2	1	2	5
Wheeler	0	1	0	1
Miscellaneous counties.	0	8	2	10
Total May	12	17	36	65
Total April	12	18	23	53
Difference	0	1	13	12

WELLS COMPLETED

CARSON COUNTY

Schafer (West), Skelly Oil Co. 16 220
Dauer-E, Texoma Nat. Gas Co. 1 ..... gas
Haiduk-G, Texoma Nat. Gas Co. 1 ..... gas

Wells completed 3
Production 220
Gas 2
Gas production 35,700,000

GRAY COUNTY

(Recompletions)

M. B. Davis, Mordyan Oil & Gas Co. 2. 640
J. K. Crews, Nelson et al 1 ..... *dry
McLaughlin, Champlin Ref. Co. 5 39
McLaughlin, Danciger O. & R. Co. 1 ... 68
Jackson (North), Skelly Oil Co. 3 395
Schafer (East), Skelly Oil Co. 6 ..... *130
Schafer (East), Skelly Oil Co. 7 ..... *250
Palmer, Stanolind Oil & Gas Co. 8 120
Palmer, Stanolind Oil & Gas Co. 6 ... 35
Bowers, The Texas Co. 11 65
Bowers, The Texas Co. 12 360

Wells completed (*new) 3
Production 380
Dry 1

MOORE COUNTY

Brumley, Sunset Oil Co. 1 155

HUTCHINSON COUNTY

Starnes, C. J. Oates 1 35
Whittenburg-D, H. Stekoll 1 125

Wells completed 2
Production 160

Southwest Texas Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Pettus	3	685	0	0	0	3	3
Eckert	4	38	0	0	0	3	3
Los Olmos ...	6	90	3	0	4	11	15
Escobas	8	835	2	0	2	4	7
Slick	1	0	0	1	0	1	1
Darst Creek .	1	1,174	0	0	1	1	2
West Cole ...	2	175	0	0	0	1	1
S.R.C.	1	0	1	0	0	0	0
Schimmel ...	1	0	1	0	0	0	0
Aviator	1	0	0	1	0	0	0
Saxet	1	0	1	0	0	4	4
Normanna ...	1	0	1	0	0	0	0
Miscellaneous.	31	4,783	27	0	22	91	114
Total May .	61	7,780	36	2	31	119	150
Total Apr. .	77	2,562	44	2	25	113	138
Difference .	16	5,218	8	0	6	6	12

WELLS COMPLETED

PETTUS POOL—BEE COUNTY

Gremmel, The Texas Co. 4 500
Ray, United Prod. Co. 40 75
Ray, United Prod. Co. 41 110

ECKERT POOL—BEXAR COUNTY

Sandomer, F. H. Eckert & Son 10 8
Terrell, L. W. Stieren 1 ..... abd
Strunk, W. K. Oil Co. 4 10
Beck, Gatlin Oil Co. 11 20

LOS OLMOS POOL—STARR COUNTY

Bass, Tarver & Nance 4 60
Bass, Kirk Cornell 1 ..... abd
Bass, Hunter & Eakles 1 ..... abd
Bass, Los Olmos O. & G. Co. 12 30
Bass, Alamo-Starr O. & G. Co. 1 ..... abd
Bass, Davis et al 5 10

ESCOBAS POOL—ZAPATA COUNTY

Guiterrez, Allied Gas Co. 23 100
Medina, O. W. Killam 7 100
Medina, O. W. Killam 6 100
Guiterrez, Allied O. & G. Co. 22 100
Montemayer, S. R. C. Oil Co. 9 400
Trevino, Trevino Oil Corp. 15 35
Trevino, W. M. Lee 1 ..... abd
Trevino, Pet. Royalty Co. 1 ..... abd

SLICK POOL—GOLIAD COUNTY

Allen, T. B. Slick estate 2 ..... gas

DARST CREEK—GUADALUPE COUNTY

Denman, John R. Camp 2 1174

WEST COLE—WEBB COUNTY

Benavides, French Oil Corp. 7-A 75
Benavides, Magnolia Pet. Co. 7 100

S.R.C. POOL—DUVAL COUNTY

Duval Ranch Co. 2 ..... abd

NORMANNA POOL—BEE COUNTY

Hicks, Gulf Coast Oil Co. 1 ..... abd

Wells completed 30
Production 2997
Gas 2
Gas production 40,000,000
Abandoned 9

SCHIMMELL POOL—BASTROP COUNTY

Williams, Schimmell & Batts 2 ..... abd

AVIATOR POOL—WEBB COUNTY

Garcia, Rose Amigos Oil Co. 1 ..... gas

SAXET POOL—NUECES COUNTY

Perkins & Gasses, Gulf Coast Oil Co. 1 abd

MISCELLANEOUS COUNTIES

Bee County—
LeRoy Roberts, Henderson Coquat 1 .. abd
Brooks County—
Wormser, Allen & Morris 1 ..... abd
Caldwell County—
McCrory, C. J. Webster O. & G. 1 100
Pierce, Cole & Moseley 1 2168
Kruse Bros., M. O. Rayer 1 ..... abd
Walker, Cranfill & Reynolds 1 ..... abd
Duval County—
Parr, R. A. Thompson 1 ..... abd
Schallert, Frank Gravis 2 ..... abd
Hagist, Trinity Drillers 1 ..... abd
Well, John F. Camp 1 ..... abd
Lopez, French Oil Corp. 1 ..... abd
Duval C. R. Co., Smith & Cappa 2 1440
Peters, Jimmy Hicks 1 ..... abd
Guadalupe County—
Brown, Luling O. & G. Co. 1 ..... abd
Pfuliman, Sal-Mar Oil Co. 1 ..... abd
Jim Hogg County—
Holbien, L. W. Conner 1 ..... abd
Fee, T. P. Morgan 1 ..... abd
Jim Wells County—
Seeligson, Magnolia-Vacuum 1 ..... abd
Kerr County—
Karger, George Ball 1 ..... abd
Lee County—
Fee, A. W. Wheeler 1 ..... abd
Live Oak County—
Hewitt, Henderson Coquat 1 ..... abd
Maverick County—
Chittim, Texas Gas Utilities 8 ..... abd
Medina County—
Fohn, Frank A. Brown 1 ..... abd
McMullen County—
Jacob, Jacob, Buzzini & Pickett 2-A.... 75
Refugio County—
Strauch, Larcro Gas & Pet. Co. 4 ..... abd
San Patricio County—
Welder, Atlantic Oil Prod. Co. 3 ..... abd
Webb County—
Cowan & Goss, Power & Dettenhain 1 abd
Gates, Norden & Morros 1 ..... abd
Zapata County—
Bruni, C. W. Killam 1 ..... abd
Benavides, The Major Co. 1 ..... abd
Gutierrez, George Ball 1 ..... abd
Zavala County—
Wolf, Carpenter, Jenkins et al 1 ..... abd

Wells completed 31
Production 4783
Abandoned 27

Gulf Coast Fields

TEXAS

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Barbers Hill .	5	5,160	1	0	1	11	12
Batson	4	75	0	0	0	1	1
Blue Ridge ..	2	1,000	1	0	0	0	0
Damon Mound	1	0	1	0	0	0	0
Esperson	0	0	0	0	0	2	2
Fannett	2	0	2	0	0	0	0
Goose Creek .	1	15	0	0	0	1	1
Hankamer ...	1	1,500	0	0	0	0	0
High Island .	1	1,400	0	0	0	5	5
Hull	1	60	0	0	1	4	5
Humble	6	341	1	0	0	7	7
Liberty	0	0	0	0	0	1	1
Lost Lake	0	0	0	0	0	1	1
Manvel	0	0	0	0	0	1	1
Markham	2	465	1	0	0	4	4
Moss Bluff ...	1	0	1	0	0	2	2
Mykawa	0	0	0	0	0	1	1
Orange	0	0	0	0	0	1	1
Pierce Jct. ..	3	930	1	0	0	3	3
Port Neches ..	1	0	1	0	0	2	2
Rabbs Ridge .	3	1,905	0	0	1	3	4
Raccoon Bend	1	0	1	0	0	1	1
Refugio	4	75	0	1	0	6	6
Saratoga	2	51	0	0	0	1	1
Miscellaneous.	13	10	12	0	2	36	39
Total May .	54	12,990	23	1	6	94	100
Total April.	45	15,655	19	2	10	88	98
Difference .	9	2,665	4	1	4	6	2

SOUTH LOUISIANA

Bayou Blue ..	1	0	1	0	0	0	0
Black Bayou..	0	0	0	0	0	1	1
Choctaw	0	0	0	0	0	2	2
Edgerly	1	50	0	0	0	0	0
Hackberry (E)	4	3,320	0	0	1	3	4
Hackberry (Old)	0	0	0	0	0	1	1
Iowa	1	450	0	0	0	1	1
Jennings	4	4	3	0	0	0	0
Lake Barre .	2	4,300	0	0	0	2	2
Lake Washington	0	0	0	0	0	1	1
Leesville	1	0	1	0	0	0	0
Lockport	0	0	0	0	0	1	1
Port Barre	1	0	1	0	0	0	0
Starks	1	20	0	0	0	0	0
Sulphur	0	0	0	0	0	3	3
Vinton	3	500	1	0	0	1	1
Miscellaneous.	2	0	2	0	0	6	6
Total May .	21	13,674	9	0	1	22	23
Total April.	19	10,565	9	0	0	35	35
Difference .	2	3,109	0	0	1	13	12
Total Gulf C.	75	26,664	32	1	7	116	123
Total April.	64	26,220	28	2	10	123	133
Difference .	11	444	4	1	3	7	10

GULF COAST

WELLS COMPLETED

BARBERS HILL—CHAMBERS COUNTY

Gulf fee, Mills Bennett Prod. Co. 1-B.... abd
Means, Mills Bennett Prod. Co. 3.....1675
Wilburn, Gulf Prod. Co. 8 985
Wilburn, Sinclair Oil & Gas Co. 12..... 1500
Chambers County, Sun Oil Co. 7 1000

Wells completed 5
Production 5160
Abandoned 1

BATSON—HARDIN COUNTY

Gulf-Knight, Ada Belle Oil Co. 152 10
Honeymoon, Ada Belle Oil Co. 153 15
Honeymoon, Ada Belle Oil Co. 154 50
Paraffin, Paraffin Oil Co. 91 3

Wells completed 4
Production 78

BLUE RIDGE—FORT BEND COUNTY

Blakely, Coronado Oil Co. 3 1000
Luscher, Gulf Prod. Co. 19 ..... abd

Wells completed 2
Production 1000
Abandoned 1

DAMON MOUND—BRAZORIA COUNTY

Wisdom, Intercoastal Oil Co. 9 ..... abd

FANNETT—JEFFERSON COUNTY

Thomas, Texas Gulf Sulphur Co. 3 .... abd
Thomas, Texas Gulf Sulphur Co. 6 .... abd

Wells completed 2
Abandoned 2

GOOSE CREEK—HARRIS COUNTY

Wright, H. J. Weir Oil Co. 4 15

HANKAMER—LIBERTY COUNTY

Boyt, Gulf Production Co. 15 1500

HIGH ISLAND—GALVESTON COUNTY

Cade, Yount Lee Oil Co. 27 1400

HULL—LIBERTY COUNTY

Dolbear, Republic Production Co. 63-A.. 60

HUMBLE—HARRIS COUNTY

Fee, Rio Bravo Oil Co. 7 96
Bender, Sun Oil Co. 26 ..... abd
River, Sun Oil Co. 51 35
River, Sun Oil Co. 52 40
River, Sun Oil Co. 53 20
W. & P. fee, The Texas Co. 24 150

Wells completed 6
Production 341
Abandoned 1

MARKHAM—MATAGORDA COUNTY

Meyers, Powers Prod. Co. and Hamill & Hamill 2 465
McDonald, United North & South Development Co. 1 ..... abd

Wells completed 2
Production 465
Abandoned 1

PIERCE JUNCTION—HARRIS COUNTY

Cain, Navarro Oil Co. 3-A 150
Herman, Moody Corp. and Pure Oil Co. 1 789
Settegast, Rio Bravo Oil Co. 7-A ..... abd

Wells completed 3
Production 930
Abandoned 1

MOSS BLUFF—LIBERTY COUNTY

Sergeant, Texas Gulf Sulphur Co. 4 ... abd

PORT NECHES—ORANGE COUNTY

Polk-Kuhn-Glass, The Texas Co. 1 .... abd

RABBS RIDGE—FORT BEND COUNTY

Booth, Gulf Prod. Co. and Humble Oil & Ref. Co. 2 750
Hampil, Humble Oil & Ref. Co. and Gulf Prod. Co. 1 105
Lockwood & Sharp, Humble Oil & Ref. Co. and Gulf Prod. Co. 2-B 1050

Wells completed 3
Production 1905

RACCOON BEND—AUSTIN COUNTY

Chesley, Grant & Baker 1 ..... abd

REFUGIO—REFUGIO COUNTY

Jeter, Houston Oil Co. 1 15
Tom Heard, Moody-Seagraves Prod. Co. 1 30
Carlysle, Moody-Seagraves Prod. Co. 1.. 30
O'Brien, United Prod. Corp. 11 ..... gas

Wells completed 4
Production 75
Gas 1

SARATOGA—HARDIN COUNTY

Cotton, Rio Bravo Oil Co. 135-A 11
Cotton, Rio Bravo Oil Co. 136-A 40

Wells completed 2
Production 51

MISCELLANEOUS TEXAS

Austin County—
Brookshire—Jackson, Sloan & Gens 1.. abd
S. F. Austin 4 League, Schevojsa, Great Southern Oil Co. 1 ..... abd
J. Cummins Hacienda Sur., Trenchman, Mulvey & Conklin 1 ..... abd
Brazoria County—
Stratton Ridge—Brock, Union Sulphur Co. 1 ..... abd
Grimes County—
Timothy Jones Sur., Dodd, Barnett et al 1 ..... abd
P. B. O'Conner Sur., Cuthrell, Rianjo Oil Co. 1 ..... abd
Harris County—
R. A. Hanks Sur., Hale, W. R. Alexaner et al 1 ..... abd
Jasper County—
Rockland—Boykin, Rio Neches Oil Co. 1 10
Rockland—Boykin, Rio Neches Oil Co. 1-A ..... abd
Jefferson County—
McGaffey Sur., Broussard, Elam & Pipkin 1 ..... abd
Montgomery County—
D. James Sur., Leiberman, Wilson Oil Co. 2 ..... abd
Newton County—
J. M. Scott Sur., Inman, Briscoe et al 1-A ..... abd
Trinity County—
Gibson, John Deering et al 1 ..... abd

Wells completed 13
Production 10
Abandoned 12

SOUTH LOUISIANA

BAYOU BLUE—IBERVILLE PARISH

Schwing, Standard Oil Co. 7 ..... abd

EDGERLY—CALCASIEU PARISH

Hunter, Emerson & Moore 1-B 50

EAST HACKBERRY—CAMERON PARISH

Watkins, Calcasieu Oil Co. 33 4000
Unsurveyed island, Calcasieu Oil Co. 2.1670
Irwin, J. G. Sutton 6 600
State, Yount Lee Oil Co. 28 2050

Wells completed 4
Production 8320

IOWA—CALCASIEU PARISH

Heyd, Shell Pet. Corp. 3 480

JENNINGS—ACADIA PARISH

Syndicate fee, Russell Campbell 3 ..... abd
Jennings fee simple, Heywood & Heywood 2 4
Syndicate fee, Kathleen Oil Co. 1 ..... abd
Rawson-Haber, Reliable Oil Co. 2 ..... abd

Wells completed 4
Production 4
Abandoned 2

LAKE BARRE—TERREBONNE PARISH

L.L.&E., The Texas Co. 2 2000
State, The Texas Co. 9 2300

Wells completed 2
Production 4300

LEESVILLE—LA FOURCHE PARISH

Esponge Viser, Pop Oil Co. 1 ..... abd

PORT BARRE—ST. LANDRY PARISH

Cochran, W. A. Aggers 1 ..... abd

VINTON—CALCASIEU PARISH

Gray, Marrs McLean 13 410
Gray, Vinton Pet. Co. 1 ..... abd
Gray, Vinton Pet. Co. 26 90

Wells completed 3
Production 500
Abandoned 1

MISCELLANEOUS LOUISIANA

Iberia Parish—
Jeff. Island—Lake Peigneur, Jeff. Lake Oil Co. 31 ..... abd
Jeff. Island—Lake Peigneur, Jeff. Lake Oil Co. 32 ..... abd

Wells completed 2
Abandoned 2

Alabama Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Clarke	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Mobile	0	0	0	0	1	0	1
Washington .	0	0	0	0	1	0	1
Total May .	0	0	0	0	2	2	4
Total April.	0	0	0	0	2	3	5
Difference .	0	0	0	0	0	1	1

North Louisiana

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rigs	Drlg.	Ttl.
Avoyelles	0	0	0	0	1	0	1
Bossier	0	0	0	0	0	1	1
Caddo	0	0	0	0	0	3	3
Caldwell	0	0	0	0	0	2	2
Catahoula	0	0	0	0	0	1	1
De Soto	1	0	1	0	2	7	9
Grant	0	0	0	0	1	1	2
Morehouse	1	0	0	1	0	0	0
Natchitoches .	0	0	0	0	1	5	6
Ouachita	0	0	0	0	0	1	1
Red River	0	0	0	0	0	2	2
Richland	0	0	0	0	0	1	1
Sabine	16	3,281	3	1	47	40	87
Texas	0	0	0	0	0	1	1
Union	1	0	0	1	2	0	2
Vernon	0	0	0	0	1	0	1
Webster	1	0	1	0	0	0	0
Total May .	20	3,281	5	3	58	64	122
Total April.	13	2,230	7	2	38	48	86
Difference .	7	1,051	2	1	20	16	136

*Gas production: Morehouse, 7,500,000 feet; Sabine, 13,379,000 feet; Union, 8,000,000 feet; total, 28,879,000 feet.

WELLS COMPLETED

DE SOTO PARISH

23-13-14 Phillips, Warren & Craig 1 .. dry

MOREHOUSE PARISH

11-20-4e Sandidge, United Gas Public Service Co. 2 ..... gas

Gas production 7,500,000

SABINE PARISH

2- 7-13 Ezernack, Beene et al 1 1500
12- 7-11 Byrd, Crescent Drilling Co. 4. 66
20- 9-11 Stevens, Frank Foster, Inc., 1. gas
2- 7-13 Nulton, M. L. Friend 1 200
25- 8-13 Stille, M. L. Friend 1 ..... abd
26- 8-11 Walden, Hudson & Byrd 1 .. dry
11- 7-11 Petty, Jack Lanier et al 1 ... 50
1- 7-11 Byrd, Ben Merritt, Tr., 3 115
17- 7-10 Davis, J. F. Palmer 1 ..... abd
9- 7-11 La. Long Leaf Lbr. Co., Pelican Nat. Gas Co. 13 150
3- 7-13 Sabine Lbr. Co., Pellican Nat. Gas Co. 8 1000
13- 7-11 Cutrer, Ruston Drilling Co. 1. dry
12- 7-11 Lafitte, Skully & Beach 1 .. 200
11- 7-13 F. Martinez, Southland Drilling Co. 2 ..... abd
2- 7-13 G. Martinez, Southland Drilling Co. 1 ..... abd
10- 7-13 Grauque, The Texas Company 2-B ..... dry

Producing wells 8
Production 3281
Gas production 13,379,000
Dry 5

UNION PARISH

17-20-4e Fee, Southern Carbon Co. 59. gas

Gas production 8,000,000

WEBSTER PARISH

11-23- 9 Matthews, J. K. Wadley 1 ... dry

Arkansas Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Ashley	0	0	0	0	0	1	1
Clay	0	0	0	0	0	1	1
Cleburne	0	0	0	0	0	1	1
Cleveland ...	0	0	0	0	1	0	1
Columbia	0	0	0	0	0	1	1
Crawford	1	0	1	0	0	0	0
Dallas	0	0	0	0	1	1	2
Drew	0	0	0	0	0	1	1
Hot Springs ..	0	0	0	0	0	1	1
Lawrence	0	0	0	0	1	0	1
Logan	0	0	0	0	0	1	1
Miller	0	0	0	0	0	3	3
Ouachita	0	0	0	0	0	2	2
Pike	0	0	0	0	0	2	2
Prairie	0	0	0	0	1	0	1
Scott	1	0	1	0	0	1	1
Sevier	0	0	0	0	0	1	1
St. Francis ..	0	0	0	0	0	1	1
Union	1	0	1	0	2	8	10
Van Buren ..	0	0	0	0	0	1	1
Washington ..	0	0	0	0	1	1	2
Yell	0	0	0	0	0	1	1
Total May .	3	0	3	0	7	29	36
Total April.	4	300	3	0	8	32	40
Difference .	1	300	0	0	1	3	4

WELLS COMPLETED

CRAWFORD COUNTY

32- 9-31 C. E. Jones, Ozark Natural Gas Co. 1 ..... dry

SCOTT COUNTY

36- 4-26 Reser, Heavener Oil & Gas Co. 1 ..... dry

UNION COUNTY

4-16-15 Hayes, Lion Oil Refining Co. 9-A ..... dry

EAST TEXAS (Border Counties)

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Bowie	0	0	0	0	0	4	4
Cass	0	0	0	0	0	4	4
Harrison	2	0	2	0	2	2	4
Marion	1	0	1	0	0	4	4
Panola	1	0	1	0	1	3	4
Shelby	2	0	2	0	0	11	11
Total May .	6	0	6	0	3	28	31
Total April.	8	0	5	3	4	30	34
Difference .	2	0	1	3	1	2	3

WELLS COMPLETED

HARRISON COUNTY

R. W. Starr Sur., Davidson, Gochee-Mellers 1 ..... dry
W. G. Pentecost Sur., Collums, J. C. Peterbaugh 1 ..... dry

MARION COUNTY

William Holloway Survey, Bertha Tyler, Benedum & Trees 1 ..... dry

PANOLA COUNTY

William Rich Sur., Latham, G. A. Davidson 1 ..... dry

SHELBY COUNTY

Aaron Castleberry Sur., Frost-Johnson, Fuller & O'Brien Bros. ..... dry

William English Sur., Morrison, H. H. Gracey 1 ..... dry

Mississippi Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Clarke	0	0	0	0	0	1	1
Hinds	0	0	0	0	0	3	3
Jasper	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Lowndes	0	0	0	0	0	1	1
Newton	0	0	0	0	0	1	1
Noxubee	0	0	0	0	0	1	1
Rankin	1	0	0	1	1	5	6
Scott	0	0	0	0	0	1	1
Sharkey	1	0	1	0	0	0	0
Warren	0	0	0	0	0	1	1
Total May	2	0	1	1	1	16	17
Total April	5	0	0	5	6	11	17
Difference	3	0	1	4	5	5	0

Gas production: Hinds, 45,000,000 feet.

WELLS COMPLETED

RANKIN COUNTY

12-5n-1e Strawder, Meredith & Smith 2 gas

Gas production 45,000,000

SHARKEY COUNTY

14-14n-6w Lenhart, United Gas Public Service Co. 1 ..... dry

Rocky Mountain Area

NEW MEXICO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Chaves	0	0	0	0	1	1	2
De Baca	0	0	0	0	0	2	2
Eddy	2	520	1	0	1	4	5
Lea	1	1,000	0	0	3	6	9
McKinley	0	0	0	0	1	5	6
Rio Arriba	0	0	0	0	0	3	3
San Juan	1	10	0	0	1	7	8
San Miguel	0	0	0	0	0	5	5
Miscellaneous	0	0	0	0	3	16	19
Total May	4	1,530	1	0	10	49	59
Total April	2	6,294	0	0	6	47	53
Difference	2	4,764	1	0	4	2	6

WELLS COMPLETED

12-29-19 Continental Oil Co. 28 10
10-19-38 Terry, Midwest Ref. Co. 8 1000
24-20-27 State, Avalon Oil Co. 1 ..... dry
19-17-30 Burch, Grayburg Oil Co. 3 520

Wells completed 4
Production 1530
Dry and abandoned 1

COLORADO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Arapahoe	0	0	0	0	0	2	2
Boulder	0	0	0	0	0	4	4
Elbert	0	0	0	0	0	3	3
Fremont	1	0	1	0	0	4	4
La Plata	0	0	0	0	1	3	4
Larimer	0	0	0	0	1	12	13
Las Animas	0	0	0	0	1	2	3
Moffat	0	0	0	0	2	2	4
Morgan	0	0	0	0	2	1	3
Rio Blanco	0	0	0	0	0	4	4
Routt	0	0	0	0	1	2	3
Weld	1	0	1	0	2	6	8
Miscellaneous	0	0	0	0	0	22	22
Total May	2	0	2	0	10	67	77
Total April	1	0	0	1	11	66	77
Difference	1	0	2	1	1	1	0

WELLS COMPLETED

24-6n-61 Gadbois, Continent Oil Co. 1 .. abd
21-18-50 Harding, Canon Heights Oil 2 .. dry

Wells completed 2
Dry and abandoned 2

WYOMING

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Big Horn	0	0	0	0	2	4	6
Carbon	0	0	0	0	1	6	7
Fremont	0	0	0	0	2	3	5
Hot Springs	0	0	0	0	0	2	2
Natrona	0	0	0	0	2	8	10
Park	0	0	0	0	0	1	6	7
Sweetwater	0	0	0	0	0	2	5	7
Sublet	0	0	0	0	0	0	7	7
Uinta	0	0	0	0	0	0	6	6
Weston	2	203	0	0	0	6	6	12
Miscellaneous	0	0	0	0	0	9	9
Total May	3	203	0	0	16	62	78
Total April	3	128	0	0	11	64	75
Difference	1	75	0	0	5	2	3

WELLS COMPLETED

21-46-62 Jones-Rose Syndicate 2 3
14-46-64 Chadron-Osage Oil Co. 16 200

Wells completed 2
Production 203

UTAH

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total May	0	0	0	0	1	19	20
Total April	0	0	0	0	1	19	20
Difference	0	0	0	0	0	0	0

MONTANA

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Carbon	1	1,300	0	0	3	7	10
Cascade	0	0	0	0	0	3	3
Fergus	0	0	0	0	0	2	2
Glacier	0	0	0	0	3	4	7
Hill	0	0	0	0	0	2	2
Liberty	1	0	1	0	2	5	7
Pondera	1	50	0	0	0	3	3
Teton	0	0	0	0	0	4	4
Toole	0	0	0	0	0	7	7	14
Miscellaneous	0	0	0	0	2	13	15
Total May	3	1,350	1	0	17	50	67
Total April	1	0	1	0	16	49	65
Difference	2	1,350	0	0	1	1	2

WELLS COMPLETED

17-27-4w Jones, Teton Corp. 3 50
3-33-6e Ross, California Co. 1 ..... dry
11-7s-21 Montana Ind. Ohio Oil 2 1300

Wells completed 3
Production 1350
Dry and abandoned 1

Eastern Fields

Summary of Completed Work

Fields—	Comp.	Prod.	Dry	Gas
Allegany	17	16	1	0
Bradford	40	121	0	0
Venango-Clarion	5	4	1	0
Butler-Armstrong	2	2	0	0
Middle Field	3	7	0	0
Tioga-Wayne	3	0	0	3
S. W. Pennsylvania	3	3	2	0
Southeast Ohio	24	135	9	0
West Virginia	27	161	3	20
Total May	124	483	16	23
Total April	93	281	14	15
Difference	31	202	2	8

Summary of Work Under Way

Fields—	Rigs	Drlg.	Ttl.
Allegany	1	9	10
Bradford	9	35	44
Venango-Clarion	1	8	9
Butler-Armstrong	2	6	8
Middle Field	0	5	5
Tioga-Wayne	2	26	28
S. W. Pennsylvania	3	11	14
Southeast Ohio	12	24	36
West Virginia	18	37	55
Total May	43	161	209
Total April	58	119	177
Difference	10	42	32

WELLS COMPLETED

ALLEGANY

Fee, N. V. V. Franchot 30
Fee, Gibson, Merry and Elwood 2
Kinley, Pure Penn Oil, Inc. 1
Fee, Arthur F. Blanchard 2
Lipper, Mary Lippert 1
Lippert, C. M. Lippert et al 3
Johnson, Andrew Johnson et al 1
Fee, Forest Oil Corp. 1
Fee, Forest Oil Corp. 1
Fee, Forest Oil Corp. 1
Fee, Forest Oil Corp. ..... pressure
Fee, Forest Oil Corp. ..... pressure
Fee, Forest Oil Corp. ..... pressure
Fee, Sawnett Oil Corp. ..... pressure
Pierce, F. L. and M. A. Putnam ..... dry
Fee, B. B. Oil Co. 5
Ames, L. A. Eastman et al 2

Wells completed 17
Production 50
Dry 1
Pressure 4

BRADFORD

Fee, Mix Creek Oil Co. ..... pressure
Fee, Mix Creek Oil Co. ..... pressure
Rasey, Chief Producing Co. ..... pressure
Rasey, Chief Producing Co. 1
Hamlin, F. J. Eisert 10
Fee, Forest Oil Corp. 1
Fee, Forest Petroleum Corp. 1
Fee, Forest Petroleum Corp. 1
Fee, Forest Petroleum Corp. 1
Fee, Forest Petroleum Corp. 1
Fee, Forest Pet. Corp. (7 wells) ..... pressure
Bingham 35-33i, Rew Oil Co. 67 2
Willets, J. W. Looker 33 3
Lincoln, Lincoln and Brink 50 1
Fee, Lincoln and Brink 51 1
Fee, Dallas Oil Co. ..... pressure
Rew, Bovaird and Hamlin 44 2
Fee, L. G. Dana 1
Burdick, South Penn Oil Co. 1
Burdick, South Penn Oil Co. 1
Fee, Indian Creek Oil Co. ..... pressure
Fee, Sloan & Zook Producing Co. 15
Fee, Sloan & Zook Producing Co. ..... pressure
Fee, Sloan & Zook Producing Co. 18
Fee, Sloan & Zook Producing Co. 20
Fee, Sloan & Zook Producing Co. ..... pressure
Fee, Sloan & Zook Producing Co. 10
Fee, Sloan & Zook Producing Co. 8
Fee, Sloan & Zook Producing Co. ..... pressure
Cram, Minard Run Oil Co. ..... pressure
Cram, Minard Run Oil Co. ..... pressure
Cram, Minard Run Oil Co. ..... pressure
Quintuple, Bovaird & Reed 1
Quintuple, Bovaird & Reed 1
Fee, Olean Petroleum Co. 15
Smedley, Towne-Melvin Oil Co. et al 2
Melvin, South Penn Oil Co. 2
Mitchell, Bradford Prod. Co., Inc. 2
Willet, Sloan & Zook Pet. Co. ..... pressure
Artley, Bradford Prod. Co., Inc. ..... pressure

Wells completed 40
Production 121
Pressure 20

BUTLER-ARMSTRONG

English, M. B. Finnessy 9 1
Ripper, Pyle Marshall et al 16 1

Wells completed 2
Production 2

VENANGO-CLARION

Smithman 68-7s, J. B. Smithman 153 .. 1
Crooks, Bower & Co. 1 ..... dry
Black, Guy H. Wingard 5 1
Foskey, Burchfield and Titusville Trust Co. 24 1
Stull, Rice and Anderson 8 1

Wells completed 5
Production 4
Dry 1

MIDDLE FIELD

Middaugh, A. L. and L. M. Lilly 2
Borden, Wilson and Patton ..... pressure
Byles, Second Natl. Bank Titusville 7 .. 5

Wells completed 3
Production 7
Pressure 1

TIOGA-WAYNE

Smith, Allegany Gas Co. ..... gas
Colegrove, North Branch Dev. Co. ..... gas
Fletcher, Penn United Gas Co. ..... gas

Wells completed 3
Gas 3

SOUTHWEST PENNSYLVANIA

WELLS COMPLETED

ALLEGANY COUNTY

Shenot, Leidecker & Gosser 2 3

GREENE COUNTY

Cowell, Equitable Gas Co. 1 ..... dry
Gregg, J. L. Garard & Co. 26 ..... dry

SOUTHEAST OHIO

WELLS COMPLETED

GUERNSEY COUNTY

Quillan, Ohio Prod. & Ref. Co. 2 50

JEFFERSON COUNTY

Williamson, J. D. Jackson & Co. 1 3
Crawford, Sanders Bros. 1 ..... dry

LICKING COUNTY

Stricker, William Stricker, et al 9 2
Walpole, R. W. Early et al 1 1

MEDINA COUNTY

Essig, Oko Oil & Gas Co. 55 ..... dry
Funk, F. Barnhard et al 6 ..... dry
Funk, F. Barnhard et al 7 ..... dry
Funk, F. Barnhard et al 8 40
Shaw, E. R. Edson & Sons Co. 20 20
Sanford & Watson, Oko Oil & Gas Co. 31 dry
Packard, E. R. Edson & Sons Co. 37 ... dry
Shaw, E. R. Edson & Sons Co. 21 5
Brown, Curtis & Eaken 6 ..... dry

MEIGS COUNTY

Karr, James Simpson 1 1

MORGAN COUNTY

Starrett, R. C. Whitener 11 ..... dry

PERRY COUNTY

Moore, L. G. Sims 3 2
Longstreth, Allegheny Oil Co. 19 2
Snider, Mid-East Gas Co. 1 5

VINTON COUNTY

Nelson, Co-operative Oil Co. 4 2

WASHINGTON COUNTY

Edwards, Swingle Bros. 1 1
Cordray Sisters, Thomas McVey et al 1 dry
Pfaff, First Nat. Bank of Lowell 18 .. 1
Burt, G. E. Morris et al 15 1

WEST VIRGINIA

WELLS COMPLETED

BOONE COUNTY

Bull Creek Coal & Land Co., Columbia Carbon Co. 1 ..... gas
Hill, C. P. Jones et al 1 ..... gas
Covert, Hill Gas Co. 2 ..... gas
Lewis heirs, Cambridge Gas Co. 2 .... gas

CABELL COUNTY

Taylor, Madison Gas Co. 1 ..... gas

CALHOUN COUNTY

Huffman, Creed Barker et al 1 135
Huffman, Creed Barker et al 1 ..... gas

GILMER COUNTY

Hinkle, Mollohan et al 1 ..... dry
Ellis heirs, Ellis Oil & Gas Co. 1 ..... gas
Ayers, A. E. Ellis, et al 1 ..... gas

KANAWHA COUNTY

Quincy Coal Co., Godfrey L. Cabot 25 . dry

LINCOLN COUNTY

Peyton, H. H. Dial 1 ..... gas
Adkins, Vernon Gas Co. 2 ..... gas
Thompson, Turtle Lick Gas Co. 1 ..... gas

MARION COUNTY

Tennant, Victor Tennant 1 ..... gas

MINGO COUNTY

Closterman, Virginia G. & O. Co. 23 ... 12

PUTNAM COUNTY

Gottle, W. H. Kirtley 2 ..... gas

RITCHIE COUNTY

Allen, Allen & Bickerstaff 1 ..... dry
Fluharty, W. H. Bickel 1 ..... gas

ROANE COUNTY

Kendall, G. E. Smith et al 1 ..... gas
Riddle, Reedy Oil & Gas Corp. 1 ..... gas
Guthrie, Reedy Oil & Gas Corp. 4 ..... gas
Connally, J. P. Young et al 1 ..... gas
Knopf, Buffalo O. & G. Co. 1 (D.D.) .. 6
Kendall, George Smith et al 1 (D.D.) . gas
Riddle, Reedy Oil & Gas Corp. 5 ..... gas

TYLER COUNTY

Johnson heirs, Howard Hall et al 3 ... 8

Lima Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	0	0	0	0	1	2	3
Hancock	0	0	0	0	0	2	2
Allen	1	10	0	0	0	0	0
Sandusky	1	0	1	0	0	0	0
Seneca	7	2	1	5	0	8	8
Lucas	4	45	2	0	1	1	2
Ottawa	0	0	0	0	0	1	1
Hardin	0	0	0	0	0	2	2
Logan	1	0	0	1	0	0	0
Putnam	0	0	0	0	0	1	1
Wyandot	1	0	1	0	1	5	6
Total May	15	57	5	6	3	22	25
Total April	6	215	0	3	4	24	28
Difference	9	158	5	3	1	2	3

WELLS COMPLETED

WOOD COUNTY

Montgomery—A. Hyter, Ohio Oil 4, 7, 13 abd
Sam Henninger, Ohio Oil 8, 9, 10, 11, 12 ..... abd
Helen M. Flaherty, Onsel Bros. 1, 2, 5, 6, 7 ..... abd
Freedom—Schaberg Bros., A. J. Klingman 1, 4, 5, 6 ..... abd
Bloom—Geo. G. Zody, Carl H. Shroyer 16, 23 ..... abd
Plain—Geo. Foos, Barclay Perry 1 .... abd

Abandoned 20

ALLEN COUNTY

Bath—Ellis Lewis, C. A. and F. Peavey 15 10
E. W. Prowant, C. A. Peavey 9 .... abd
J. W. Fetter, C. C. Apple 8, 10..... abd

Wells completed 1
Production 10
Abandoned 3

AUGLAIZE COUNTY

Noble—John Fleck, Ohio Oil 2 ..... abd

SANDUSKY COUNTY

Washington—J. G. Draeger, L. W. Wells & Co. 1 ..... dry
Scott—J. C. Fisher, Geo. A. and John A. Willard 19 ..... abd
Jackson—J. N. Snyder, Ohio Oil 3, 4, 5, 6, 7, 9 ..... abd

Wells completed 1
Dry 1
Abandoned 7

SENECA COUNTY

Hopewell—A. D. Bickler, E. E. Holsinger & Co. 1 2
Fay E. Sparks, J. H. Murphy & Sons 1 dry
C. D. Knepper, J. H. Murphy & Sons 3 gas
M. W. Hunker, Tiffin Industrial Gas Co. 1 ..... gas
Lorenzo D. Creeger, Sandusky Gas 1. gas
Ray Knepper, Ray Temple 1 ..... gas
Liberty—C. Swartzmiller, Tiffin Industrial Gas 1 ..... gas

Wells completed 7
Production 2
Dry 1
Gas 5

LUCAS COUNTY

Monclova—H. & A. Goldbrath, Dillon & McFredricks 2 25
Solomon Betts, John Doblinger 1 20
Keil Bros., M. Gray & Co. 1 ..... dry
Springfield — Emmett Holloway, R. B. Weed & Co. 2 ..... dry

Wells completed 4
Production 45
Dry 2

LOGAN COUNTY

Rush Creek—Bernice B. Potter, Simms Oil 1 ..... gas

WYANDOT COUNTY

Crane — Edward Walton, McPheron & Co. 1 ..... dry

Central Ohio Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ashland	0	0	0	0	1	2	3
Lorain	0	0	0	0	1	2	3
Medina	9	65	6	0	1	1	2
Holmes	0	0	0	0	1	2	3
Cuyahoga	1	0	0	1	0	0	0
Richland	0	0	0	0	0	1	1
Knox	0	0	0	0	1	1	2
Coshocton	0	0	0	0	2	0	2
Summitt	1	0	0	1	0	2	2
Licking	2	7	0	0	0	2	2
Muskingum	0	0	0	0	3	7	10
Athens	0	0	0	0	2	3	5
Tuscarawas	0	0	0	0	2	4	6
Stark	8	0	0	8	3	10	13
Fairfield	2	0	0	2	0	0	0
Guernsey	3	40	0	2	0	4	4
Belmont	2	0	1	1	0	6	6
Gallia	0	0	0	0	0	1	1
Scioto	0	0	0	0	0	2	2
Pike	0	0	0	0	0	2	2
Carroll	0	0	0	0	0	4	4
Columbiana	1	0	1	0	0	0	0
Crawford	0	0	0	0	0	1	1
Lawrence	0	0	0	0	0	8	8
Total May	29	112	8	15	17	65	82
Total April	29	68	8	17	21	68	89
Difference	0	44	0	2	4	3	7

WELLS COMPLETED

MEDINA COUNTY

Chatham—Henry Essig, Oko Oil & Gas 56 ..... dry
Sanford-Watson, Oko Oil & Gas 31 .. dry
Watson, Oko Oil & Gas 15 ..... dry
G. W. Packard, Edson Sons Co. 36, 37 dry
W. A. Shaw, Edson Sons Co. 23 20
W. A. Shaw, Edson Sons Co. 24 5
Thomas Brown, Curtis & Eaken 6 .. dry
Harrisville—Jos. W. Funk, Barnhart & Co. 8 40

Wells completed 9
Production 65
Dry 6

CUYAHOGA COUNTY

Strongville — Martin Taish, Ohio Fuel Gas 1-5,569 ..... gas

SUMMITT COUNTY

Green—F. S. Keifer, East Ohio Gas 2.. gas

LICKING COUNTY

Madison—Sam E. Walpole, Earl Bros. 2 5
Mary Ann—Wm. Stricker, Wm. Stricker 9 2

Wells completed 2
Production 7

STARK COUNTY

Jackson—Bruce Crissinger, Ohio Fuel Gas 4-5,641 ..... gas
J. & C. Albright, East Ohio Gas 1... gas
Leo Franks, East Ohio Gas 2 ..... gas
T. K. Harris, East Ohio Gas 5 ..... gas
J. C. Steiner, Brendall & Co. 5 ..... gas
J. O. Young, Brendall & Co. 1 ..... gas
Besse J. Slagle, White & Bacon 2 ... gas
Geo. H. Charls, East Ohio Gas 2 .... gas

Wells completed 8
Gas 8

FAIRFIELD COUNTY

Pleasants—Henry Hartman, City Natural Gas Works 5 ..... gas
Berne—E. Ruff, City Nat. Gas Works 4 gas

Wells completed	2
Gas	2

GUERNSEY COUNTY

Wheeling—Clarence Dillon, East Ohio Gas 2 40
C. W. Martin, Ohio Fuel Gas 1-5,650.. gas
Cambridge—House-Wilson, Chas. Smith & Co. 1 ..... gas

Wells completed	3
Production	40
Gas	2

BELMONT COUNTY

Somerset—Geo. A. Neptune, Washmuth & Callahan 1 ..... dry
Union—Brown-Humphrey, Ohio Fuel Gas 1 ..... gas

Wells completed	2
Dry	1
Gas	1

COLUMBIANA COUNTY

Knox—H. & A. Miller, Penn Crude Oil 1 dry

Kentucky Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ohio	9	273	2	0	0	6	6
Daviess	17	362	5	0	0	9	9
Hancock	1	0	1	0	2	8	10
Barren	0	0	0	0	0	2	2
McLean	3	400	2	0	4	7	11
Hart	3	400	0	1	0	20	20
Knox	1	0	0	1	0	1	1
Greene	0	0	0	0	0	1	1
Webster	0	0	0	0	0	2	2
Edmonson	0	0	0	0	0	1	1
Todd	0	0	0	0	0	1	1
Nelson	0	0	0	0	0	1	1
Taylor	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Bath	0	0	0	0	0	1	1
Breckenridge	0	0	0	0	0	1	1
Christian	1	0	0	1	0	4	4
Hopkins	0	0	0	0	0	2	2
Boyle	0	0	0	0	0	1	1
Cumberland	0	0	0	0	0	2	2
Butler	0	0	0	0	2	0	2
Grayson	2	0	0	2	1	1	2
Total May	37	1,435	13	5	10	73	83
Total April	48	1,460	15	9	9	66	75
Difference	11	25	2	4	1	7	8

WELLS COMPLETED

OHIO COUNTY

Hartford—I. T. Westerfield, Harry L. Ogle & Co. 2 27
Lucille Taylor, Ellis, Carpenter & Co. 2 30
David Brooks, Cumberland Petroleum 8 50
Cromer & Cromer, James C. Ellis 3.. 5
J. E. Hendrix, B. & B. Oil Co. 13 ... 10
A. F. Bellamy, Cane Run Pet. 1 ..... dry
Chambers Motor Co., Chester Oil 1 .. 1
Himes, Fred Weir & Co. 1 ..... dry
Dave Christian, Bolling & Haumne 1 150

Wells completed	9
Production	273
Dry	2

DAVIESS COUNTY

Owensboro—Widow Tanner, Harry Russell 2 35
Jones, Roy Hogan 1 12
Alsip, Cox & Co. 2 40
Chas. Beil, Frank Cox & Co. 4 ..... dry
Ashward heirs, Sam T. Gill & Co. 1. dry
Robert Jones, Mida McMahan 3 ..... dry
E. R. Cooper, Ellis & Ashby 1 125
J. Richardson, Huff, Garrison & Co. 1 12
L. P. Williams, Brenner & Adams 2.. 40
Paul Birch, Thrasher & Brewer 1 8
Esra Chanceller, Hupp, French & Co. 1 ..... dry
H. O. Neel, S. H. Russell 3 15
Ed Barrett, Evans & Garrison 1 ..... dry
S. Sults, Mecca Oil Co. 1 and 2 ..... dry
J. T. Mayfield, S. M. Sherman 2 75
Harrison Bros., Goldberg & Ellis 2 .. dry

Wells completed	17
Production	362
Dry	8

HANCOCK COUNTY

Pellville—E. H. Bannon, Vicars & Co. 1 dry

McLEAN COUNTY

Calhoun—Roy Owens, Paul Goldberg & Co. 1 400
Homer Johnson, Hupp & Duff 1 .... dry
Ed Sommers, First Owensboro Bank & Trust 2 ..... dry

Wells completed	3
Production	400
Dry	2

HART COUNTY

Horse Cave—Robertson, Archie Compton 1 350
Robertson, Carpenter & Frost 5 50
Larkin Key, C. C. Taliaferro, Jr., 1.. gas

Wells completed	3
Production	400
Gas	1

KNOX COUNTY

Barbourville—Unknown, Lettmer Oil & Gas 1 ..... gas

CHRISTIAN COUNTY

Hopkinsville—Dr. M. E. Craft, Unknown parties 1 ..... gas

GRAYSON COUNTY

Leitchfield—Shartzer, Kentucky Public Service Co. 1 ..... gas
Seaton, Kentucky Public Service Co. 1 gas

Wells completed	2
Gas	2

Indiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Gibson	2	175	0	1	1	6	7
Pike	1	55	0	0	0	2	2
Daviess	1	0	0	1	0	6	6
Warrick	0	0	0	0	0	1	1
Sullivan	0	0	0	0	0	8	8
Spencer	0	0	0	0	0	7	7
Perry	2	80	0	0	0	3	3
Knox	1	12	0	0	0	6	6
Marshall	0	0	0	0	1	1	2
Lagrange	0	0	0	0	0	1	1
Putnam	0	0	0	0	0	1	1
Posey	0	0	0	0	0	1	1
Dubois	1	0	1	0	0	2	2
Harrison	1	0	1	0	0	2	2
Hamilton	0	0	0	0	0	2	2
Dearborn	0	0	0	0	0	1	1
Crawford	0	0	0	0	0	1	1
Greene	0	0	0	0	0	3	3
Switzerland	0	0	0	0	0	2	2
St. Joe	0	0	0	0	0	1	1
Rush	0	0	0	0	0	2	2
DeKalb	0	0	0	0	0	1	1
Pulaski	0	0	0	0	0	1	1
Elkhart	0	0	0	0	1	0	1
Fountain	1	0	1	0	0	1	1
Orange	0	0	0	0	0	1	1
Ripley	1	0	1	0	0	0	1
Franklin	1	0	1	0	0	0	0
Union	1	0	1	0	0	0	0
Vigo	0	0	0	0	0	1	1
Total May	13	322	6	2	3	63	66
Total April	14	255	7	5	1	61	62
Difference	1	67	1	3	2	2	4

WELLS COMPLETED

GIBSON COUNTY

Columbia—G. B. Allen, Wabash Public Service Co. 3 ..... gas
Washington—Nora Hope, Big Four Oil & Gas 1 175
Sallie Cunningham, Ohio Oil 2, 4 .... abd
Lester Cunningham, Ohio Oil 2, 3 ... abd
Samuel Ford, Ohio Oil 1 ..... abd

Wells completed	2
Production	175
Gas	1
Abandoned	5

PIKE COUNTY

Logan—G. Robling, Chas. L. Divers No. 3 & Co. 4 55

DAVIESS COUNTY

Harrison—Alva C. Smith, Amsler & Gilmore 2 ..... gas

PERRY COUNTY

Clark—Alvin Franchill, Conyer & Bugg 2 75
H. Cassidy, W. S. M. Hughes 1 5

Wells completed	2
Production	80

KNOX COUNTY

Busserson—Anna Sprout, C. A. Thayer 1 12

DUBOIS COUNTY

Madison—Anton Hoff, Dubois Oil & Gas 1 ..... dry

HARRISON COUNTY

Jackson—C. E. Barnhary, Brooks J. Johnston 1 ..... dry

FOUNTAIN COUNTY

Troy—Gants, Fountain Oil & Gas 1 ... dry

RIPLEY COUNTY

Otter Creek—Sam W. Hall, American Industrial Gas Co. 1 ..... dry

UNION COUNTY

Harrison—H. Lafuge, American Industrial Gas Co. 1 ..... dry

FRANKLIN COUNTY

Laurel—Johnnie Jinks, American Industrial Gas 1 ..... dry

Illinois Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Clark	1	2	0	0	0	2	2
Coles	0	0	0	0	0	2	2
Edgar	0	0	0	0	0	1	1
Crawford	1	20	0	0	1	3	4
St. Clair	0	0	0	0	0	2	2
Randolph	0	0	0	0	0	2	2
Monroe	0	0	0	0	0	2	2
Washington	0	0	0	0	0	1	1
Boone	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Jefferson	0	0	0	0	0	1	1
Jasper	0	0	0	0	0	1	1
Marion	0	0	0	0	0	1	1
Total May	2	22	0	0	1	20	21
Total April	4	0	4	0	1	21	22
Difference	2	22	4	0	0	1	1

WELLS COMPLETED

CLARK COUNTY

Casey—J. B. Lawrence, Stifal & Co. 1 . 2
Martinsville—Daniel Morgan, Rhodes & Keith 1, 2, 3 ..... abd

Wells completed	1
Production	2
Abandoned	3

CRAWFORD COUNTY

Montgomery—Raymond Oldham, W. C. McBride, Inc. 1 20

LAWRENCE COUNTY

Dennison—Lydia Seed, Ohio Oil 7 ..... abd

WABASH COUNTY

Wabash—Hattie E. Robinson, Foreman & Miller 1 ..... abd

ST. CLAIR COUNTY

Sugar Loaf—Hall & Weihl, St. Clair County Oil 1, 3, 4 ..... abd
Fred Metter, H. & M. Operating Co. 1, 2 ..... abd
Pauline Eckert, H. & M. Operating Co. 1, 2, 3, 4 ..... abd
Pauline Eckert No. 2, H. & M. Operating Co. 1, 3 ..... abd
Pauline Eckert, Hagerman & Weldon 1, 2 ..... abd
C. A. Phelps Lot, L. G. Blackman & Co. 1 ..... abd

Abandoned	14

Michigan Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Muskegon	0	0	0	0	1	0	1
Isabella	1	300	0	0	13	27	40
Midland	13	12,195	3	0	15	23	38
Clare	0	0	0	0	2	0	2
Lake	0	0	0	0	0	2	2
Cass	0	0	0	0	1	1	2
Kent	0	0	0	0	1	2	3
Oceana	0	0	0	0	1	5	6
Emmett	0	0	0	0	0	1	1
Eaton	0	0	0	0	1	0	1
Iosco	0	0	0	0	2	0	2
Montmorency	0	0	0	0	3	0	3
Sanilac	0	0	0	0	3	0	3
Leelanau	0	0	0	0	1	0	1
Gratiot	1	0	0	0	2	0	2
Shiawassee	0	0	0	0	2	2	4
Allegan	0	0	0	0	0	4	4
Livingston	0	0	0	0	2	1	3
Osceola	0	0	0	0	2	0	2
St. Clair	0	0	0	0	1	0	1
Alpena	0	0	0	0	1	0	1
Cheboygan	0	0	0	0	0	1	1
Kalamazoo	0	0	0	0	0	1	1
Oakland	0	0	0	0	0	1	1
Genesee	0	0	0	0	1	0	1
Saginaw	0	0	0	0	3	1	4
St. Joe	0	0	0	0	1	0	1
Total May	14	12,495	3	0	59	72	131
Total April	16	18,295	5	1	46	86	132
Difference	2	5,800	2	1	13	14	1

WELLS COMPLETED

ISABELLA COUNTY

Vernon—Lewis Thayer, Mellon Pollock Co. 2 300

MIDLAND COUNTY

Greendale—A. J. Struble, W. L. McClanahan, Inc. 5 500
H. W. Morrison, W. L. McClanahan, Inc. 2 1200
H. W. Morrison, W. L. McClanahan, Inc. 3 3600
Emma O. Reed, Pure Oil 2 850
Pringle heirs, Pure Oil 1 125
A. Bernard, Pure Oil B-3 450
T. E. McCann, Pure Oil 1 800
Iosco Land Co., Pure Oil A-2 1400
State of Michigan, Talbot Oil C-2 ...2700
Geo. Hornick, Columbia Oil & Gas 5. 570
Peninsular Oil, Hanner-Renner-Jones 1 ..... dry
Mount Haley—H. Simms, T. K. Buzzard 1 ..... dry
Jerome—Merrifield- Nelson Fred Sias 1 dry

Wells completed	13
Production	12,195
Dry	3

GUTHRIE ELECTION

Logan Cary of Oklahoma City, receiver of Western Service Corp., which established gas service at Guthrie, Okla., last December under a franchise granted two years ago, has refused an offer of $185,000 for the Guthrie gas distribution system and pipe line from the Oklahoma City Field, made recently by the Guthrie city council. A franchise election is scheduled for September 20 on renewal of the franchise of the Guthrie Gas Service Co., a Lone Star Gas Corp. subsidiary.

NATURAL GAS IN POLAND

Poland's production of natural gas in 1931 amounted to 473,823,000 cubic meters, compared with 486,506,000 in the preceding year. Manufacture of gasoline took 277,625,679 cubic meters of the 1931 output, and 286,051,137 of that in 1930. Production of natural gasoline in Poland came to 345,880 bbls. in 1931 and 324,889 in 1930.

R. T. ZOOK PRESIDENT GRADE ASSOCIATION

BRADFORD, Pa., June 25.—Ralph T. Zook, president of Sloan & Zook, Bradford, was elected president of the Pennsylvania Grade Crude Oil Association at the annual meeting in the Hotel Emery, Bradford, Friday. He succeeds Forest D. Dorn, president of the Forest Oil Co., Bradford, who served three years as president. The meeting attracted 225 producers and refiners from all parts of the Pennsylvania grade producing district.

The remainder of the officers were re-elected as follows: Fayette B. Dow, Washington, D. C., vice president and general counsel; John A. Beck, Butler, vice president; E. M. Lyons, Philadelphia, recording secretary, and Samuel Messer, Oil City, treasurer.

On motion of C. L. Suhr of Oil City the number of board of directors was increased from 18 to 21 and the following were elected directors: R. T. Eastell, Pittsburgh; F. D. Dorn, Bradford; H. A. Lewis, Warren; Otto Koch, Bradford; E. C. Breene, Samuel Messer and C. L. Suhr, Oil City; J. P. Flynn, Sistersville, W. Va.; E. M. Lyons, Philadelphia; H. D. Atha, Logan, Ohio; John A. Beck, Butler; J. D. Dinsmore, St. Marys, W. Va.; D. M. Wilson, New York City; John P. Herrick, Olean, N. Y.; David B McCalmont, Franklin; John McCoy, Marietta, Ohio; D. J. Sweeney, Buffalo, N. Y.; E. C. Emery, Bradford; Ralph T. Zook, Bradford; H. Logan, Warren; E. Craig, Freedom.

Mr. Suhr explained that the purpose of increasing the board of directors was to make it more representative.

Mr. Dow spoke of the reduced inventories of bright stock among Pennsylvania refiners due to the heavy sales prior to the Federal tax and declared that it would be only good sense to keep the inventories low.

"The era of unrestricted competition," said Mr. Dow, "is gone and we are approaching an era of co-operation in trade associations which has possibilities of high development."

VOTE ON GAS FRANCHISE ASKED IN MEXICO, MO.

MEXICO, Mo., June 27.—The Mexico Chamber of Commerce has voted to request the city council to submit a natural gas franchise proposal to the voters of Mexico. The Missouri Power & Light Co. is seeking a 14-year natural gas franchise at rates lower than now charged for manufactured gas. The city council has repeatedly rejected an ordinance providing for a special election to vote on a franchise. Instead, the city filed a test complaint with the Missouri Public Service Commission to require the company to serve customers with natural gas without a franchise grant. A commission decision is expected this summer. The company has furnished gas since 1926.

CLASSIFIED ADVERTISING

Help Wanted

SPECIALTY SALESMAN for Kansas. Commission basis. Established line Oil Well Supplies needing no introduction. Full details first letter. Address Box F-220, The Oil and Gas Journal, Tulsa, Okla.

Ranches and Farm Lands

BARGAIN for oil men or stockmen. 1,480 acres improved, 200 acres farm land, 1,279 acres finest Bluestem, never failing water. Oil structure and producing wells, 3,000 acres Bluestem, water and oil structure. William Mahannah, Latham, Kans.

Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

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Before disclosing your invention to anyone, send for blank form, Evidence of Conception.
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CHARTERS — Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

Wanted

OIL WANTED—Small refinery desires purchase oil in North Louisiana, Seminole, Okla., East Texas fields or other good crude that could be economically transported to plant. Standard Petroleum Products, Amite, La.

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6 lines ..	2.10	3.60	5.10	6.60
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8 lines ..	2.80	4.80	6.80	8.80
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THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

For Sale—Equipment

200 AMP. General Electric Arc Welder; portable; 220 V. 3 ph. 60 cy. Complete. Like new. $350. 7x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $225. 8x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $250. 36"x18' Fifield Screw Cutting Lathe. $650. Also large stock of lathes, shapers, pipe machines, bolt threaders, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West Second St., Cincinnati, Ohio.

FOR SALE—Practically new heavy Parkersburg Drilling Machine and Tools with up to date Gas or Gasoline Drilling Engine. A bargain if sold at once. Address Box F-221, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE at Bargain Prices: New Material for Crude Pipe Still Unit, Including:
Heat exchangers; still tubes; cast iron condenser piping; tube headers; soot blowers; pipe; pumps; valves; pipe fittings; tube rollers; electrical wiring materials.
Write for detailed list. The Winkler-Koch Engineering Company, 335 West Lewis Street, Wichita, Kansas.

FOR SALE—30 Star Beam Machine, Waukesha Engine, Caterpillar Traction. Fred Kessler or B. J. Chronic, Tulsa, Okla.

Equipment Wanted

WANTED—30,000 feet of plain end or screwed pipe from 4 to 10-inch, must be low price. Reply by letter stating shipping point. American Engineering Co., Chatham, Ontario.

WANTED to buy one hot oil pump for 600 pounds pressure, 700° temperature, 30 to 75 GPM, steam pressure pounds. Must be in good condition. Address Box F-232, The Oil and Gas Journal, Tulsa, Okla.

WANTED TO BUY—Several pieces 6x19 right lay ¾" wire line in good used condition, in 500 to 2,000 foot lengths. H. C. B., P. O. Box 483, Chanute, Kans.

GAS ENGINES WANTED—Two 25 H.P. engines for pumping oil wells. Muskegon Pipe Line Co., Muskegon, Mich.

Business Opportunities

WE ARE organized to serve you—"In Mexico"—Oil, Mines, Lands, Concessions, Divorces.
International Business Bureau,
First National Bank Bldg.,
El Paso, Texas.

Business Opportunities

OIL located before drilling. Geophysical method. Toggodometer Instrument; take pay in oil. No oil, no pay, except traveling and testing expenses. 95 per cent accuracy. O. P. Coffin, Caddo, Tex.

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OIL PRODUCING COMPANY paying large monthly dividends from settled production, invites limited additional capital to drill out proven leases. No proration. Exceptional investment opportunity. Fullest investigation welcomed. Responsible representatives also desired to assist financing.
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Fidelity Building Dallas, Texas

FOR SALE
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GRADUATE Mechanical Engineer wishes position. Unlimited experience in all phases of refinery construction. Experience covers United States, West Indies and Russia. Best of references. Available immediately. Write or wire M. H. Compo, Apt. No. 8, Westport, Conn.

PRODUCTION man of wide experience and fully capable of managing producing properties or new development. Address Box F-222, The Oil and Gas Journal, Tulsa, Okla.

GRADUATE ENGINEER with four years' experience in refinery engineering, operation and chemistry desires future. Address Box F-230, The Oil and Gas Journal, Tulsa, Okla.

ENGINEER with several inventions wants manufacturing or sales connection. Equipment for high pressure gas wells—Air lift and siphon apparatus—Pumping equipment especially adapted for East Texas conditions. Demonstration of models in laboratory, or complete written description on request. Address Box F-231, The Oil and Gas Journal, Tulsa, Okla.

DRILLING AND PRODUCTION
Superintendent, with petroleum engineering experience, and exceptional qualifications desires position. College graduate. Box 87, Laredo, Texas.

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JAMES E. MILLER CO., 207½ E. Third St., Tulsa, Okla., will co-operate with responsible parties seeking aid in financing projects of higher order. Valuations, Engineering, Geology.

FINANCE YOUR OWN project with shares bonded. Quickest, most satisfactory known method of raising capital. Information free. Bankers Interstate Security, Electric Bldg., Denver, Colo.

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BROOKWORTH,
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Royalties—Production

STANOLIND CHASE, TEXAS SANDLIN, GYPSY GRAY, quoted dealers. Plats data and full information. W. E. Cook, 342 Court Arcade, Tulsa, Okla.

Royalties—Production

MONTHLY INCOME-PAYING Royalties under Oklahoma City and Seminole Wilcox Sand wells offered. W. E. Cook, 342 Court Arcade, Tulsa, Oklahoma.

AUTHENTIC Reports Oklahoma City and Greater Seminole Fields. Price $5.00 per month. Clyde Kelly, 608 Perrine Bldg., Oklahoma City, Okla.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood, P. O. Box 2261, Tulsa, Okla.

OIL, GAS and Mineral Royalties fifty-four Texas counties, also standard form leases. Brokers and Salesmen write H. H. White, Moore Bldg., San Antonio, Tex.

ROYALTIES in the territory of coming big development in Kansas, Stafford, Barton, Ellsworth, Kingman and Stevens Counties, core drilled. Also producing royalties. Special service to brokers. Send for list. James R. Haynes, Grantville, Kans.

CHEAP ROYALTIES—Shell-Humble midwest Blocks, Kans., Okla., Texas. Big list, agents wanted. Harry Haynes, Grantville, Kans.

ROYALTY and leases Goliad County, Texas, close up to Humble location on huge core drilled block. James R. Haynes, Grantville, Kansas.

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Leases—Production

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GEOLOGICALLY selected drilling blocks. No bonus. No fees. Nicolle, Box 903, Houston, Tex.

I HAVE 2,600 acre Oil lease in Ward County, Texas. Will trade for clear property at $30 per acre. P. O. Box 1343, Big Spring, Texas.

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Changes in copy must be in our office 10 days in advance of publication date.

Mail your advertisement to the Largest Classified Section in the Oil Industry.

THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

Leases—Production

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TEXAS PANHANDLE Gas Production and Royalties is my Hobby—get my prices. Wire or write. E. B. Reeves, Box 13, Alanreed, Gray County, Texas.

FOR SALE
Several thousand acres of mineral rights, covering one-half of the oil and minerals on the land. For sale on the basis of $500 per quarter, for one-half of the mineral rights thereon. They are perpetual and participating. Located in Hodgeman, Trego, Ford, Kearney, Seward and Haskell Counties, Kansas. Also have several commercial blocks on good structure, and several drilling blocks. Brokers and Promoters do not answer. Write P.O. Box 471, Dodge City, Kansas, for further information.

NEW MEXICO Oil Leases, Lands and Royalties. Free State Map and information. Roy G. Barton, Clovis, New Mex.

GAS PRODUCTION—Kansas fields 10-cent market, quick pay out. Also undeveloped, proven acreage, priced to sell. Address Box F-233, The Oil and Gas Journal, Tulsa, Okla.

WE HAVE THREE Complete Standard drilling rigs, located in West Texas, and want some deep hole contracts. Address W. M. Worthen, Box 295, Ennis, Texas.

WILL purchase paying gas franchise, or will build gas line to good market. Also in line for shallow oil production.
NATIONAL INVESTMENT CO.,
Box 1292,
Amarillo, Texas.

FOR SALE
Leases and Royalties on large new structure, now being drilled. Write or wire. B. E. Perkins, 217 Main Street, Baton Rouge, La.

FAIRFIELD COUNTY

Pleasants—Henry Hartman, City Natural Gas Works 5 ..... gas
Berne—E. Ruff, City Nat. Gas Works 4 gas

Wells completed 2
Gas 2

GUERNSEY COUNTY

Wheeling—Clarence Dillon, East Ohio Gas 2 40
C. W. Martin, Ohio Fuel Gas 1-5,550 .. gas
Cambridge—House-Wilson, Chas. Smith & Co. 1 ..... gas

Wells completed 3
Production 40
Gas 2

BELMONT COUNTY

Somerset—Geo. A. Neptune, Washmuth & Callahan 1 ..... dry
Union—Brown-Humphrey, Ohio Fuel Gas 1 ..... gas

Wells completed 2
Dry 1
Gas 1

COLUMBIANA COUNTY

Knox—H. & A. Miller, Penn Crude Oil 1 dry

Kentucky Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ohio	9	273	2	0	6	6	6
Daviess	17	362	8	0	0	9	9
Hancock	1	0	1	0	2	8	10
Barren	0	0	0	0	0	2	2
McLean	3	400	2	0	4	7	11
Hart	3	400	0	1	0	20	20
Knox	1	0	0	1	0	1	1
Greene	0	0	0	0	1	1	2
Webster	0	0	0	0	0	2	2
Edmonson	0	0	0	0	0	1	1
Todd	0	0	0	0	0	1	1
Nelson	0	0	0	0	0	1	1
Taylor	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Bath	0	0	0	0	0	1	1
Breckenridge	0	0	0	0	0	1	1
Christian	1	0	0	1	0	4	4
Hopkins	0	0	0	0	0	2	2
Boyle	0	0	0	0	0	1	1
Cumberland	0	0	0	0	0	2	2
Butler	0	0	0	0	0	2	2
Grayson	2	0	0	2	1	1	2
Total May	37	1,435	13	5	10	73	83
Total April	48	1,460	15	9	9	66	75
Difference	11	25	2	4	1	7	8

WELLS COMPLETED
OHIO COUNTY

Hartford—I. T. Westerfield, Harry L. Ogle & Co. 2 27
Lucille Taylor, Ellis, Carpenter & Co. 2 30
David Brooks, Cumberland Petroleum 1 50
Cromer & Cromer, James C. Ellis 3.. 5
J. E. Hendrix, B. & B. Oil Co. 13 ... 10
A. F. Bellamy, Cane Run Pet. 1 ..... dry
Chambers Motor Co., Chester Oil 1 . 1
Himes, Fred Weir & Co. 1 ..... dry
Dave Christian, Bolling & Haumne 1 150

Wells completed 9
Production 273
Dry 2

DAVIESS COUNTY

Owensboro—Widow Tanner, Harry Russell 2 35
Jones, Roy Hogan 1 12
Alsip, Cox & Co. 2 40
Chas. Bell, Frank Cox & Co. 4 ..... dry
Ashward heirs, Sam T. Gill & Co. 1. dry
Robert Jones, Mida McMahan 3 ..... dry
E. R. Cooper, Ellis & Ashby 1 125
J. Richardson, Huff, Garrison & Co. 1 12
L. P. Williams, Brenner & Adams 2.. 40
Paul Birch, Thrasher & Brewer 1 8
Esra Chancellor, Hupp, French & Co. 1 ..... dry
H. O. Neel, S. H. Russell 2 15
Ed Barrett, Evans & Garrison 1 ..... dry
B. Sultz, Mecca Oil Co. 1 and 2 ..... dry
J. T. Mayfield, S. M. Sherman 2 75
Harrison Bros., Goldberg & Ellis 2 .. dry

Wells completed 17
Production 362
Dry 8

HANCOCK COUNTY

Pellville—E. H. Bannon, Vicars & Co. 1 dry

McLEAN COUNTY

Calhoun—Roy Owens, Paul Goldberg & Co. 1 400
Homer Johnson, Hupp & Duff 1 .... dry
Ed Sommers, First Owensboro Bank & Trust 3 ..... dry

Wells completed 3
Production 400
Dry 2

HART COUNTY

Horse Cave—Robertson, Archie Compton 1 350
Robertson, Carpenter & Frost 5 50
Larkin Key, C. C. Taliaferro, Jr., 1.. gas

Wells completed 3
Production 400
Gas 1

KNOX COUNTY

Barbourville—Unknown, Lettmer Oil & Gas 1 ..... gas

CHRISTIAN COUNTY

Hopkinsville—Dr. M. E. Craft, Unknown parties 1 ..... gas

GRAYSON COUNTY

Leitchfield—Shartzer, Kentucky Public Service Co. 1 ..... gas
Seaton, Kentucky Public Service Co. 1 gas

Wells completed 2
Gas 2

Indiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Gibson	2	175	0	1	1	6	7
Pike	1	55	0	0	0	2	2
Daviess	1	0	0	1	0	6	6
Warrick	0	0	0	0	0	1	1
Sullivan	0	0	0	0	0	8	8
Spencer	0	0	0	0	0	7	7
Perry	2	80	0	0	0	3	3
Knox	1	12	0	0	0	5	5
Marshall	0	0	0	0	1	1	2
Lagrange	0	0	0	0	0	1	1
Putnam	0	0	0	0	0	1	1
Posey	0	0	0	0	0	1	1
Dubois	1	0	1	0	0	2	2
Harrison	1	0	1	0	0	2	2
Hamilton	0	0	0	0	0	2	2
Dearborn	0	0	0	0	0	1	1
Crawford	0	0	0	0	0	1	1
Greene	0	0	0	0	0	3	3
Switzerland	0	0	0	0	0	2	2
St. Joe	0	0	0	0	0	1	1
Rush	0	0	0	0	0	2	2
DeKalb	0	0	0	0	0	1	1
Pulaski	0	0	0	0	0	1	1
Elkhart	0	0	0	0	1	0	1
Fountain	1	0	1	0	0	1	1
Orange	0	0	0	0	0	1	1
Ripley	1	0	1	0	0	0	1
Franklin	1	0	1	0	0	0	0
Union	1	0	1	0	0	0	0
Vigo	0	0	0	0	0	1	1
Total May	13	322	6	2	3	63	66
Total April	14	265	7	5	1	61	62
Difference	1	67	1	3	2	2	4

WELLS COMPLETED
GIBSON COUNTY

Columbia—G. B. Allen, Wabash Public Service Co. 3 ..... gas
Washington—Nora Hope, Big Four Oil & Gas 1 175
Sallie Cunningham, Ohio Oil 2, 4 .... abd
Lester Cunningham, Ohio Oil 2, 3 ... abd
Samuel Ford, Ohio Oil 1 ..... abd

Wells completed 2
Production 175
Gas 1
Abandoned 5

PIKE COUNTY

Logan—G. Robling, Chas. L. Divers No. 3 & Co. 4 55

DAVIESS COUNTY

Harrison—Alva C. Smith, Amsler & Gilmore 2 ..... gas

PERRY COUNTY

Clark—Alvin Franchill, Conyer & Bugg 2 75
H. Cassidy, W. S. M. Hughes 1 5

Wells completed 2
Production 80

KNOX COUNTY

Busserson—Anna Sprout, C. A. Thayer 1 12

DUBOIS COUNTY

Madison — Anton Hoff, Dubois Oil & Gas 1 ..... dry

HARRISON COUNTY

Jackson — C. E. Barnhary, Brooks J. Johnston 1 ..... dry

FOUNTAIN COUNTY

Troy—Gants, Fountain Oil & Gas 1 ... dry

RIPLEY COUNTY

Otter Creek—Sam W. Hall, American Industrial Gas Co. 1 ..... dry

UNION COUNTY

Harrison—H. Lafuge, American Industrial Gas Co. 1 ..... dry

FRANKLIN COUNTY

Laurel—Johnnie Jinks, American Industrial Gas 1 ..... dry

Illinois Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Clark	1	2	0	0	0	2	2
Coles	0	0	0	0	0	2	2
Edgar	0	0	0	0	0	1	1
Crawford	1	20	0	0	1	3	4
St. Clair	0	0	0	0	0	2	2
Randolph	0	0	0	0	0	2	2
Monroe	0	0	0	0	0	2	2
Washington	0	0	0	0	0	1	1
Boone	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Jefferson	0	0	0	0	0	1	1
Jasper	0	0	0	0	0	1	1
Marion	0	0	0	0	0	1	1
Total May	2	22	0	0	1	20	21
Total April	4	0	4	0	1	21	22
Difference	2	22	4	0	0	1	1

WELLS COMPLETED
CLARK COUNTY

Casey—J. B. Lawrence, Stifal & Co. 1 . 2
Martinsville—Daniel Morgan, Rhodes & Keith 1, 2, 3 ..... abd

Wells completed 1
Production 2
Abandoned 3

CRAWFORD COUNTY

Montgomery—Raymond Oldham, W. C. McBride, Inc. 1 20

LAWRENCE COUNTY

Dennison—Lydia Seed, Ohio Oil 7 ..... abd

WABASH COUNTY

Wabash—Hattie E. Robinson, Foreman & Miller 1 ..... abd

ST. CLAIR COUNTY

Sugar Loaf—Hall & Weihl, St. Clair County Oil 1, 3, 4 ..... abd
Fred Metter, H. & M. Operating Co. 1, 2 ..... abd
Pauline Eckert, H. & M. Operating Co. 1, 2, 3, 4 ..... abd
Pauline Eckert No. 2, H. & M. Operating Co. 1, 3 ..... abd
Pauline Eckert, Hagerman & Weldon 1, 2 ..... abd
C. A. Phelps Lot, L. G. Blackman & Co. 1 ..... abd

Abandoned 14

Michigan Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Muskegon	0	0	0	0	1	0	1
Isabella	1	300	0	0	13	27	40
Midland	13	12,195	3	0	15	23	38
Clare	0	0	0	0	2	0	2
Lake	0	0	0	0	0	2	2
Cass	0	0	0	0	1	1	2
Kent	0	0	0	0	1	2	3
Oceana	0	0	0	0	1	5	6
Emmett	0	0	0	0	0	1	1
Eaton	0	0	0	0	1	0	1
Iosco	0	0	0	0	2	0	2
Montmorency	0	0	0	0	3	0	3
Sanilac	0	0	0	0	3	0	3
Leelanau	0	0	0	0	1	0	1
Gratiot	1	0	0	0	2	0	2
Shiawassee	0	0	0	0	2	2	4
Allegan	0	0	0	0	0	4	4
Livingston	0	0	0	0	2	1	3
Osceolo	0	0	0	0	2	0	2
St. Clair	0	0	0	0	1	0	1
Alpena	0	0	0	0	1	0	1
Cheboygan	0	0	0	0	0	1	1
Kalamazoo	0	0	0	0	0	1	1
Oakland	0	0	0	0	0	1	1
Genesee	0	0	0	0	1	0	1
Saginaw	0	0	0	0	3	1	4
St. Joe	0	0	0	0	1	0	1
Total May	14	12,495	3	0	59	72	131
Total April	16	18,295	5	1	46	86	132
Difference	2	5,800	2	1	13	14	1

WELLS COMPLETED
ISABELLA COUNTY

Vernon—Lewis Thayer, Mellon Pollock Co. 2 300

MIDLAND COUNTY

Greendale—A. J. Struble, W. L. McClanahan, Inc. 5 500
H. W. Morrison, W. L. McClanahan, Inc. 2 1200
H. W. Morrison, W. L. McClanahan, Inc. 3 3600
Emma O. Reed, Pure Oil 2 850
Pringle heirs, Pure Oil 1 125
A. Bernard, Pure Oil B-3 450
T. E. McCann, Pure Oil 1 800
Iosco Land Co., Pure Oil A-2 1400
State of Michigan, Talbot Oil C-3 ... 2700
Geo. Hornick, Columbia Oil & Gas 5.. 570
Peninsular Oil, Hanner-Renner-Jones 1 ..... dry
Mount Haley—H. Simms, T. K. Buzzard 1 ..... dry
Jerome—Merrifield- Nelson Fred Sias 1 dry

Wells completed 13
Production 12,195
Dry 3

GUTHRIE ELECTION

Logan Cary of Oklahoma City, receiver of Western Service Corp., which established gas service at Guthrie, Okla., last December under a franchise granted two years ago, has refused an offer of $185,000 for the Guthrie gas distribution system and pipe line from the Oklahoma City Field, made recently by the Guthrie city council. A franchise election is scheduled for September 20 on renewal of the franchise of the Guthrie Gas Service Co., a Lone Star Gas Corp. subsidiary.

NATURAL GAS IN POLAND

Poland's production of natural gas in 1931 amounted to 473,823,000 cubic meters, compared with 486,506,000 in the preceding year. Manufacture of gasoline took 277,625,679 cubic meters of the 1931 output, and 286,051,137 of that in 1930. Production of natural gasoline in Poland came to 345,880 bbls. in 1931 and 324,889 in 1930.

R. T. ZOOK PRESIDENT GRADE ASSOCIATION

BRADFORD, Pa., June 25.—Ralph T. Zook, president of Sloan & Zook, Bradford, was elected president of the Pennsylvania Grade Crude Oil Association at the annual meeting in the Hotel Emery, Bradford, Friday. He succeeds Forest D. Dorn, president of the Forest Oil Co., Bradford, who served three years as president. The meeting attracted 225 producers and refiners from all parts of the Pennsylvania grade producing district.

The remainder of the officers were re-elected as follows: Fayette B. Dow, Washington, D. C., vice president and general counsel; John A. Beck, Butler, vice president; E. M. Lyons, Philadelphia, recording secretary, and Samuel Messer, Oil City, treasurer.

On motion of C. L. Suhr of Oil City the number of board of directors was increased from 18 to 21 and the following were elected directors: R. T. Eastell, Pittsburgh; F. D. Dorn, Bradford; H. A. Lewis, Warren; Otto Koch, Bradford; E. C. Breene, Samuel Messer and C. L. Suhr, Oil City; J. P. Flynn, Sistersville, W. Va.; E. M. Lyons, Philadelphia; H. D. Atha, Logan, Ohio; John A. Beck, Butler; J. D. Dinsmore, St. Marys, W. Va.; D. M. Wilson, New York City; John P. Herrick, Olean, N. Y.; David B. McCalmont, Franklin; John McCoy, Marietta, Ohio; D. J. Sweeney, Buffalo, N. Y.; E. C. Emery, Bradford; Ralph T. Zook, Bradford; H. Logan, Warren; E. Craig, Freedom.

Mr. Suhr explained that the purpose of increasing the board of directors was to make it more representative.

Mr. Dow spoke of the reduced inventories of bright stock among Pennsylvania refiners due to the heavy sales prior to the Federal tax and declared that it would be only good sense to keep the inventories low.

"The era of unrestricted competition," said Mr. Dow, "is gone and we are approaching an era of co-operation in trade associations which has possibilities of high development."

VOTE ON GAS FRANCHISE ASKED IN MEXICO, MO.

MEXICO, Mo., June 27.—The Mexico Chamber of Commerce has voted to request the city council to submit a natural gas franchise proposal to the voters of Mexico. The Missouri Power & Light Co. is seeking a 14-year natural gas franchise at rates lower than now charged for manufactured gas. The city council has repeatedly rejected an ordinance providing for a special election to vote on a franchise. Instead, the city filed a test complaint with the Missouri Public Service Commission to require the company to serve customers with natural gas without a franchise grant. A commission decision is expected this summer. The company has furnished gas since 1926.

CLASSIFIED ADVERTISING

Help Wanted

SPECIALTY SALESMAN for Kansas. Commission basis. Established line Oil Well Supplies needing no introduction. Full details first letter. Address Box F-220, The Oil and Gas Journal, Tulsa, Okla.

Ranches and Farm Lands

BARGAIN for oil men or stockmen. 1,480 acres improved, 200 acres farm land, 1,279 acres finest Bluestem, never failing water. Oil structure and producing wells, 3,000 acres Bluestem, water and oil structure. William Mahannah, Latham, Kans.

Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

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Before disclosing your invention to anyone, send for blank form,
Evidence of Conception.
Bulletin "How to Establish Your Rights" and complete information free.
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Suite 418-815, 15th St., N.W.,
WASHINGTON, D. C.

Incorporations

CHARTERS — Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

Wanted

OIL WANTED—Small refinery desires purchase oil in North Louisiana, Seminole, Okla., East Texas fields or other good crude that could be economically transported to plant. Standard Petroleum Products, Amite, La.

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6 lines ..	2.10	3.60	5.10	6.60
7 lines ..	2.45	4.20	5.95	7.70
8 lines ..	2.80	4.80	6.80	8.80
9 lines ..	3.15	5.40	7.65	9.90
10 lines ..	3.50	6.00	8.50	11.00

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THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

For Sale—Equipment

200 AMP. General Electric Arc Welder; portable; 220 V. 3 ph. 60 cy. Complete. Like new. $350. 7x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $225. 8x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $250. 36"x18' Fifield Screw Cutting Lathe. $650. Also large stock of lathes, shapers, pipe machines, bolt threaders, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West Second St., Cincinnati, Ohio.

FOR SALE—Practically new heavy Parkersburg Drilling Machine and Tools with up to date Gas or Gasoline Drilling Engine. A bargain if sold at once. Address Box F-221, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE at Bargain Prices: New Material for Crude Pipe Still Unit, Including:
Heat exchangers; still tubes; cast iron condenser piping; tube headers; soot blowers; pipe; pumps; valves; pipe fittings; tube rollers; electrical wiring materials.
Write for detailed list. The Winkler-Koch Engineering Company, 335 West Lewis Street, Wichita, Kansas.

FOR SALE—30 Star Beam Machine, Waukesha Engine, Caterpillar Traction. Fred Kessler or B. J. Chronic, Tulsa, Okla.

Equipment Wanted

WANTED—30,000 feet of plain end or screwed pipe from 4 to 10-inch, must be low price. Reply by letter stating shipping point. American Engineering Co., Thatham, Ontario.

WANTED to buy one hot oil pump for 600 pounds pressure, 700° temperature, 30 to 75 GPM, steam pressure 100 pounds. Must be in good condition. Address Box F-232, The Oil and Gas Journal, Tulsa, Okla.

WANTED TO BUY—Several pieces 6x19 right lay ¾" wire line in good used condition, in 500 to 2,000 foot lengths. H. C. B.. P. O. Box 483, Chanute, Kans.

GAS ENGINES WANTED—Two 25 H.P. engines for pumping oil wells. Muskegon Pipe Line Co., Muskegon, Mich.

Business Opportunities

WE ARE organized to serve you—"In Mexico"—Oil, Mines, Lands, Concessions, Divorces.
International Business Bureau,
First National Bank Bldg.,
El Paso, Texas.

Business Opportunities

OIL located before drilling. Geophysical method. Toggodometer Instrument; take pay in oil. No oil, no pay, except traveling and testing expenses. 95 per cent accuracy. O. P. Coffin, Caddo, Tex.

ESTABLISHED EARNINGS
OIL PRODUCING COMPANY paying large monthly dividends from settled production, invites limited additional capital to drill out proven leases. No proration. Exceptional investment opportunity. Fullest investigation welcomed. Responsible representatives also desired to assist financing.
STEED PRODUCTION COMPANY
Fidelity Building Dallas, Texas

FOR SALE
Kettleman Hills Field, California. 80 acres fee land within 1½ miles of Felix and Shell-Dixon wells for $150.00 an acre. Box 412, San Luis Obispo, Calif.

Situations Wanted

GRADUATE Mechanical Engineer wishes position. Unlimited experience in all phases of refinery construction. Experience covers United States, West Indies and Russia. Best of references. Available immediately. Write or wire M. H. Compo, Apt. No. 8, Westport, Conn.

PRODUCTION man of wide experience and fully capable of managing producing properties or new development. Address Box F-222, The Oil and Gas Journal, Tulsa, Okla.

GRADUATE ENGINEER with four years' experience in refinery engineering, operation and chemistry desires future. Address Box F-230, The Oil and Gas Journal, Tulsa, Okla.

ENGINEER with several inventions wants manufacturing or sales connection. Equipment for high pressure gas wells—Air lift and siphon apparatus—Pumping equipment especially adapted for East Texas conditions. Demonstration of models in laboratory, or complete written description on request. Address Box F-231, The Oil and Gas Journal, Tulsa, Okla.

DRILLING AND PRODUCTION
Superintendent, with petroleum engineering experience, and exceptional qualifications desires position. College graduate. Box 87, Laredo, Texas.

Money Raising

JAMES E. MILLER CO., 207½ E. Third St., Tulsa, Okla., will co-operate with responsible parties seeking aid in financing projects of higher order. Valuations, Engineering, Geology.

FINANCE YOUR OWN project with shares bonded. Quickest, most satisfactory known method of raising capital. Information free. Bankers Interstate Security. Electric Bldg., Denver, Colo.

JOHN MORRIS, 3608 WARREN ST., PHILADELPHIA, Pa., invites full facts first letter from capable parties planning negotiation of reasonable capital support for undertakings distinctly of higher order. Use registered mail, safeguard data.

DO YOU NEED MONEY for organizing or financing oil or mining deals? Write 2443 N. W. 12th, Oklahoma City.

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BROOKWORTH,
110 East 42nd St., New York City.

Royalties—Production

STANOLIND CHASE, TEXAS SANDLIN, GYPSY GRAY, quoted dealers. Plats data and full information. W. E. Cook, 342 Court Arcade, Tulsa, Okla.

Royalties—Production

MONTHLY INCOME-PAYING Royalties under Oklahoma City and Seminole Wilcox Sand wells offered. W. E. Cook, 342 Court Arcade, Tulsa, Oklahoma.

AUTHENTIC Reports Oklahoma City and Greater Seminole Fields. Price $5.00 per month. Clyde Kelly, 608 Perrine Bldg., Oklahoma City, Okla.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood, P. O. Box 2261, Tulsa, Okla.

OIL, GAS and Mineral Royalties fifty-four Texas counties, also standard form leases. Brokers and Salesmen write H. H. White, Moore Bldg., San Antonio, Tex.

ROYALTIES in the territory of coming big development in Kansas, Stafford, Barton, Ellsworth, Kingman and Stevens Counties, core drilled. Also producing royalties. Special service to brokers. Send for list. James R. Haynes, Grantville, Kans.

CHEAP ROYALTIES—Shell-Humble midwest Blocks, Kans., Okla., Texas. Big list, agents wanted. Harry Haynes, Grantville, Kans.

ROYALTY and leases Goliad County, Texas, close up to Humble location on huge core drilled block. James R. Haynes, Grantville, Kansas.

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MONTHLY INCOME ROYALTIES for sale by owner, positive delivery, approximately 50% per annum returns, deeds one-quarter acre up. Inquiries promptly answered.
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Leases—Production

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GEOLOGICALLY selected drilling blocks. No bonus. No fees. Nicolle, Box 903, Houston, Tex.

I HAVE 2,600 acre Oil lease in Ward County, Texas. Will trade for clear property at $30 per acre. P. O. Box 1343, Big Spring, Texas.

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Changes in copy must be in our office 10 days in advance of publication date.

Mail your advertisement to the Largest Classified Section in the Oil Industry.

THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

Leases—Production

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Several thousand acres of mineral rights, covering one-half of the oil and minerals on the land. For sale on the basis of $500 per quarter, for one-half of the mineral rights thereon. They are perpetual and participating. Located in Hodgeman, Trego, Ford, Kearney, Seward and Haskell Counties, Kansas. Also have several commercial blocks on good structure, and several drilling blocks. Brokers and Promoters do not answer. Write P.O. Box 471, Dodge City, Kansas, for further information.

NEW MEXICO Oil Leases, Lands and Royalties. Free State Map and information. Roy G. Barton, Clovis, New Mex.

GAS PRODUCTION—Kansas fields 10-cent market, quick pay out. Also undeveloped, proven acreage, priced to sell. Address Box F-233, The Oil and Gas Journal, Tulsa, Okla.

WE HAVE THREE Complete Standard drilling rigs, located in West Texas, and want some deep hole contracts. Address W. M. Worthen, Box 295, Ennis, Texas.

WILL purchase paying gas franchise, or will build gas line to good market. Also in line for shallow oil production.
NATIONAL INVESTMENT CO.,
Box 1292,
Amarillo, Texas.

FOR SALE
Leases and Royalties on large new structure, now being drilled. Write or wire. B. E. Perkins, 217 Main Street, Baton Rouge, La.

ROCKIN' THE BOAT

YOU can help insure an earlier return of Mid-Continent Prosperity by keeping Mid-Continent dollars working at home.

Every dollar you spend for equipment with a Mid-Continent owned supply Company means more money to spend in the pockets of a Mid-Continent worker and his family.

When you can actually save money—and get better service—from Bridgeport, why not sit tight, instead of Rocking the Boat by sending your money out of the territory? THINK IT OVER!

DO YOU KNOW— that Bridgeport has reduced its rental rates on all tools? RENTAL PRICES ON REGULAR TYPE SWAN UNDERREAMERS REDUCED FULL 50%.

DO YOU KNOW— that the more you use Bridgeport Rental Service, during these times, the better chance you will have of making a profit on your operations? Bridgeport stores are open 24 hours every day and Sunday.

DO YOU KNOW— that Bridgeport is the largest and oldest rental tool company in the World?

DO YOU KNOW— that every Bridgeport branch carries complete stocks of Rotary fishing tools, heavy type, overshots, milling tools, tapered taps, and other rotary tools which you can rent whenever you need them? Also complete lines of cable drilling and fishing tools for rent?

DO YOU KNOW— that if you rent a tool from Bridgeport, and then find you do not need it, and return it within 10 days, Bridgeport will not charge you anything for the time you have had the tool out?

DO YOU KNOW— that Bridgeport does not charge you for the use of tools while in transportation by common carrier?

DO YOU KNOW— that Bridgeport will rent you a complete string of drilling or cleaning out tools (or any part), except cordage, belting, or boilers, for any size hole, and even include a 24" bit at a reasonable rental?

DO YOU KNOW— that you can even rent such unusual tools as the following from Bridgeport?

24" Drive Head	24" Drilling Bits
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20" Elevators (Wilson or Ideal)	
20" Spiders & Slips	20" Drive Heads

15½" New Type or Regular Swan Underreamers.
3" and 4" New Type Swan Underreamers.
3½" Drilling tools, complete strings.
Rope Knife Outfits, Complete.
Burt Swabs, All Sizes.

WIRE OR PHONE US, COLLECT—LET US QUOTE YOU

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Wichita, Kansas

Branches Conveniently Located in All Active Mid-Continent Oil Fields

BRIDGEPORT MACHINE COMPANY, Wichita, Kansas. Check here
Gentlemen: Please send me copy of your Free bargain list. ☐
I am in the market for.....
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St. & No. .....
City ..... State .....

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